Round Barrows in Chalcolithic and Early Bronze Age Yorkshire

Architecture, Burial, and Landscape

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Abstract

This thesis examines the role of round barrows during the Chalcolithic and Early Bronze Age (c. 2500 – 1500 BC) in Yorkshire. This is done by exploring patterns in site distribution, use of construction material, changes in artefact deposition, burial practices and architectural traditions to examine changing prehistoric engagements with the dead, the remains of past monuments, and the land itself through three key questions. These are: how were round barrows in Yorkshire developed over time, how did they affect the changing relationships between the living and the dead, and what do they tell us about prehistoric engagement with the physical world?

Across the centuries of their use, round barrows relate differently to the sense of space and place, conceptions of past and memory, and signify shifting relationships between the living and the dead. These trends are traced across whole of Yorkshire and in specific case study areas: the Upper Wold Valley, the Ure-Swale interfluve, and the Howardian Hills. Throughout Yorkshire, there is a co-existence of Beakers and Food Vessels in burials. Practices such as cremation burial were more common in certain regions than others in the latter half of the Early Bronze Age. In the Wolds and the Vale of Mowbray, inhumation remained a significant practice throughout the Chalcolithic and Early Bronze Age. Cremation burial became more influential across Yorkshire and round barrows with burials of cremated remains were built in the Howardian Hills without pre-existing monuments. In the Ure-Swale interfluve, round barrows were built both within Neolithic monument complexes and outside of them c. 2150-1750 BC. After that development of burial mounds moves away from older monuments.

Diversity in round barrows is difficult to appreciate from only the Wolds or the North Yorkshire Moors. The region might follow many of the patterns established elsewhere in Britain but it is comprised of varied and a greater level of refinement could define other parts of the county better by using the wider-scale framework to examine monuments in the surrounding regions.

Acknowledgments

First of all, I would like to thank my supervisors: Chris Fowler and Jan Harding; for their comments, critique, and general support throughout what proved to be a difficult process of getting this research to fruition. In addition, I would like to thank my parents for their emotional, financial, statistical and proofing support. I would like to thank the staff of the School of History, Classics, and Archaeology and the Faculty of Humanities, Arts, and Social Sciences for their support and understanding for the various issues that arose over the course of four years. Finally, but definitely not least, I would like to thank the various friends and colleagues in the four years that I have made Newcastle my home for their support, chitchat, and wisdom.

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Chapter 1. Introduction

This thesis explores the role of round barrows between c. 2500-1500 BC in Yorkshire. Approaching the data generally and focusing on three case studies, the thesis tackles these monuments as developing entities by analysing their architecture and the relationship in the landscape with existing sites in addition to their burials and associated mortuary practices. The thesis poses three main research questions: how did round barrows in Yorkshire develop over time, how did these developments affect and reflect the changing relationships between the living and the dead, and what do these sites tell us about prehistoric engagement with the physical world?

Round barrows attracted attention from antiquarian scholars such as Leland and Camden. The first systematic excavations of burial mounds were carried out in the 19th Century by Sir Richard Colt-Hoare and William Cunnington in Wiltshire. They produced *The History of Ancient Wiltshire*, a two volume work detailing their excavation in 1812 and 1819. The text was influenced as much by the fashionable taste in gothic literature as by historic and scientific inquiry but it was influential among subsequent scholars in the 19th Century. The first antiquarian work that examined burial mounds in Yorkshire was Thomas Bateman's *Ten Years' Diggings* (1861). This book described the excavation of over four hundred round barrows across Derbyshire, Staffordshire, and Yorkshire carried out by Bateman and his collaborators.

John Thurnam's (1869) two-part monograph was more analytical (each part focused on long and round burial mounds respectively), *Ancient British Barrows* was the result of excavations carried out to recover human remains from the burial mounds described in Colt-Hoare and Cunnington's' *Ancient Wiltshire*. Thurnam's primary interest was craniological but his methodical analysis of burial mounds and their artefacts formed the basis of archaeological investigations that followed. Less than a decade later, William Greenwell published details of his extensive excavations throughout England in *British Barrows* (1877). These investigations included much of the Yorkshire Wolds, as well Gloucestershire, County Durham, and Northumberland. Greenwell's extensive introduction provides an overview of Victorian thinking regarding these monuments and addresses the prevailing interpretations of the time drawing upon evidence

collected from various excavations. This work was the model for another extensive barrow corpus, solely focused on the Yorkshire Wolds: John Mortimers' *Forty years' researches in British and Saxon burial mounds of East Yorkshire* (1905).

The 20th Century brought Leslie Grinsell's first edition of *The Ancient Burial Mounds of England* (1936). The book examined both Neolithic and Bronze Age burial mounds based on Grinsell's formidable survey experience throughout the country. It received several editions and revisions until the nineteen seventies. Another contribution was Paul Ashbee's *The Bronze Age Round Barrow in Britain* published in 1960. These works were the standard archaeological references on round burial mounds during the twentieth century. The most recent work by a single author on the subject of barrows is *British Barrows: A Matter of Life and Death*, which explores archaeological understandings of prehistoric burial mounds as different categories of site (Woodward, 2000).

1.1. Landscape and geology of Yorkshire

Figure 1.1 shows the topographic map of Yorkshire overlain by Natural England's natural character areas. These areas are defined by flora, fauna, and underlying geology. They offer a better way of breaking down the landscape, and recent studies in areas such as the Wolds (Neal 2009), or the Swale-Ure Washlands (Bridgland *et al* 2011), have pressed the necessity for examining post-Holocene development of the constituent landscapes of Yorkshire but some areas remain poorly understood. For example, a recent paper on agricultural development in prehistoric Britain collated a few samples from the Yorkshire material (Stevens and Fuller, 2012).

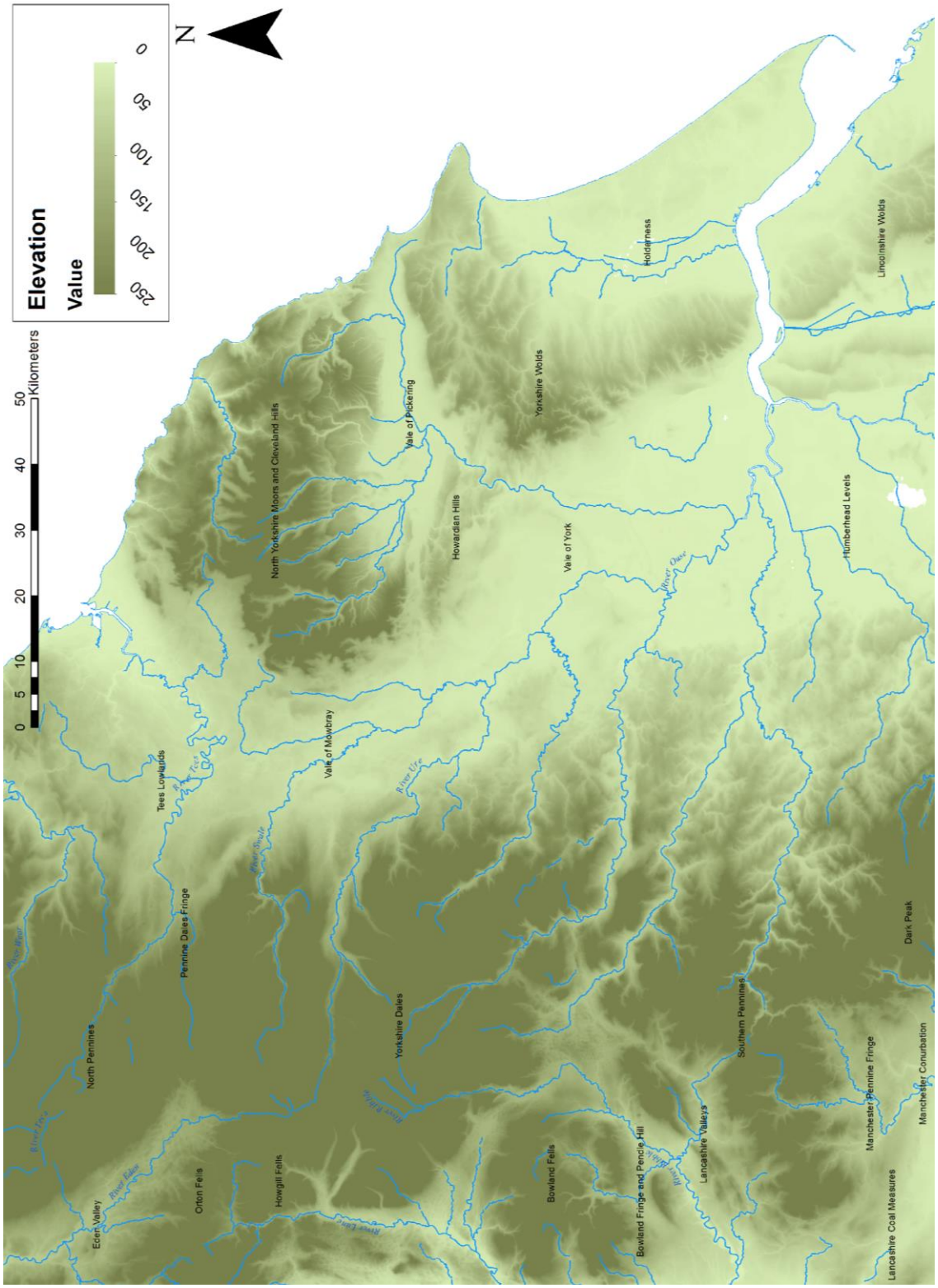

Figure 1.1: Map of Yorkshire indicating key rivers, vales, and key ranges

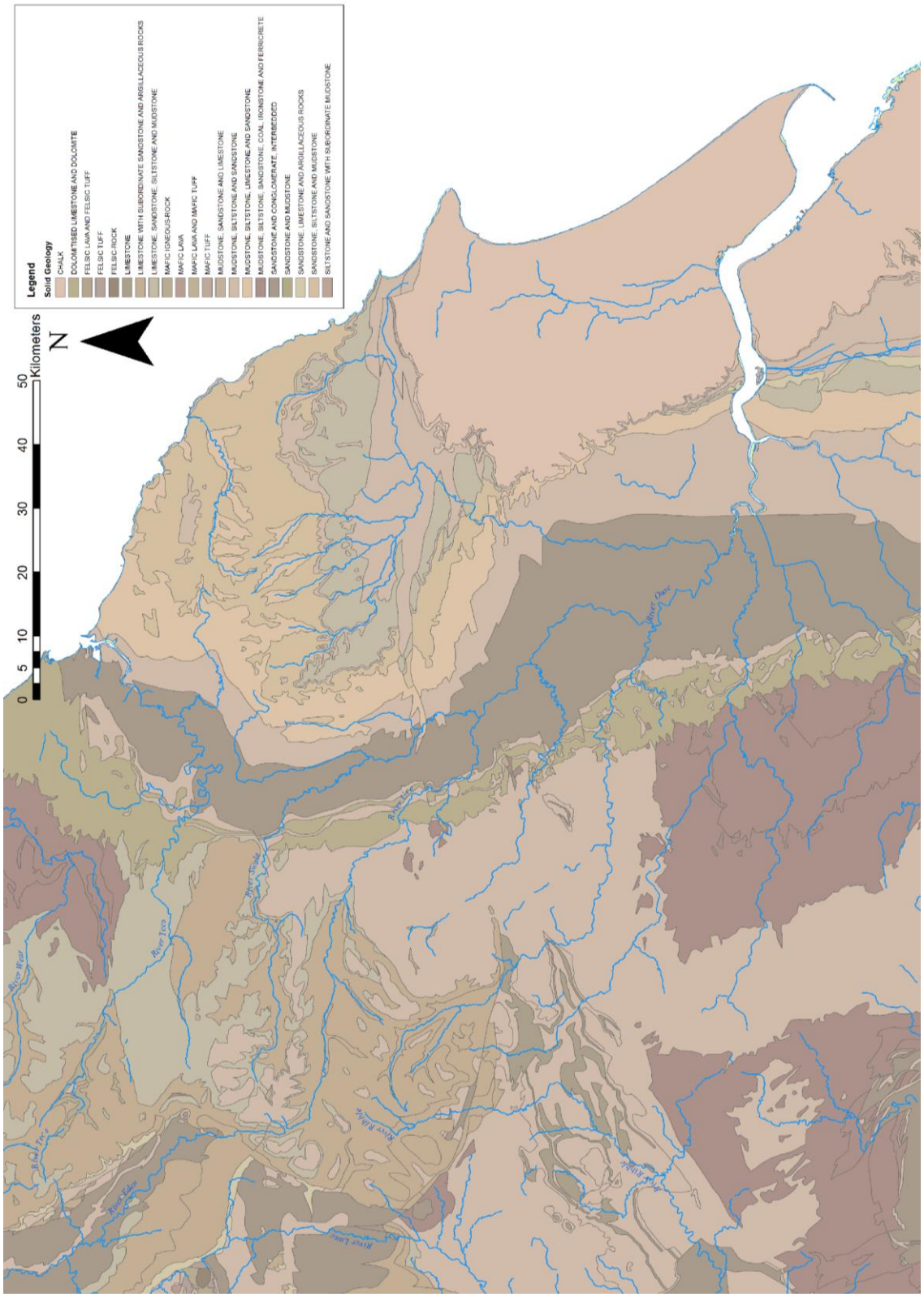

Figure 1.2: Solid geology of Yorkshire

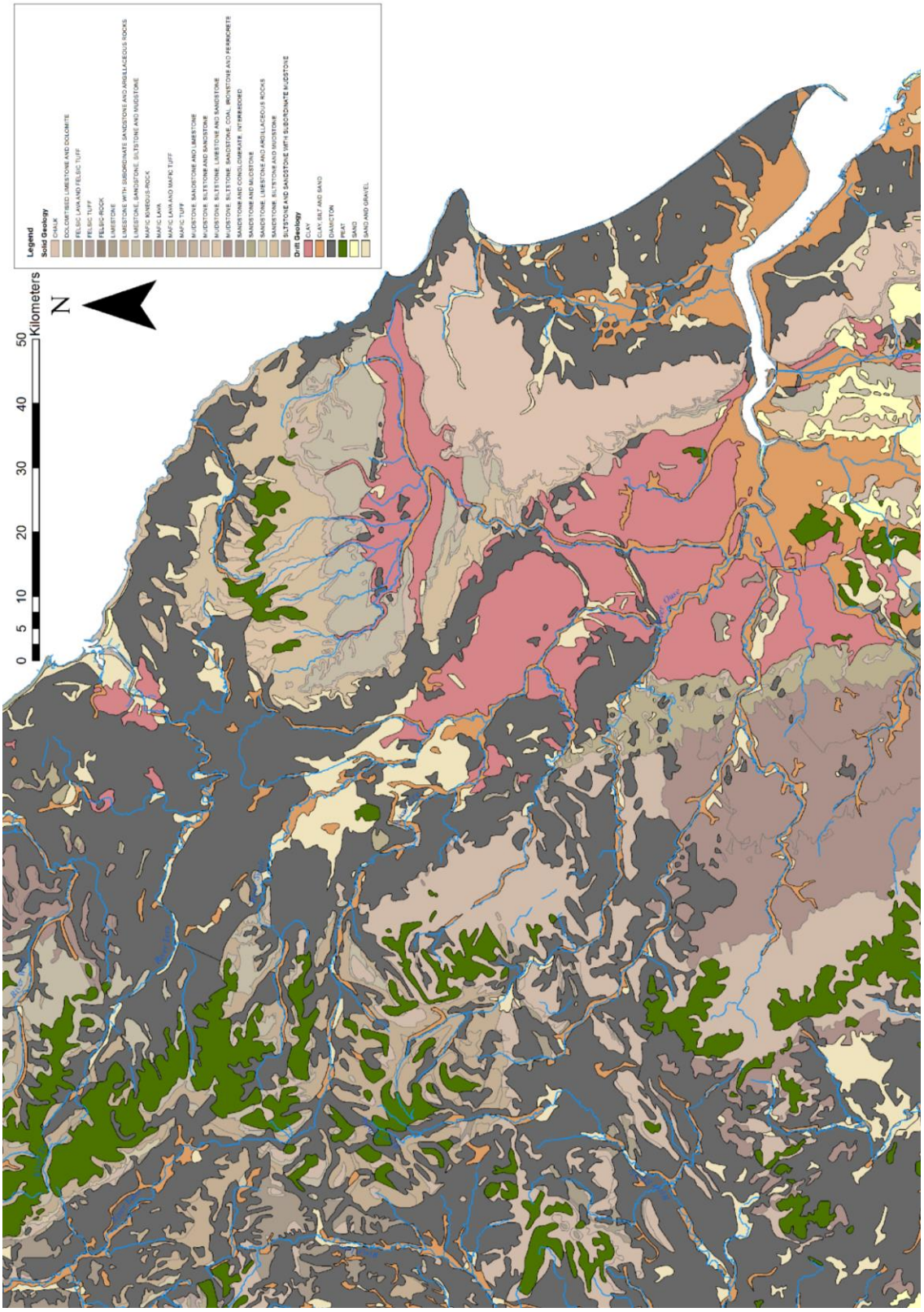

Figure 1.3: Solid and drift geology of Yorkshire

Geology is discussed in studies of Yorkshire and its prehistory without explaining its significance. The role of geological formation is significant and the impact of mineral deposits in landscape history has a major role to play in understanding the development of topography and materiality of material culture. This section addresses Yorkshire's geological background and its impact on prehistoric archaeology in the region.

Solid geology is shown in Figure 1.2. The Pennines, the westernmost part of Yorkshire, were formed during the Carboniferous period over 275 million years ago. These hills consist of sandstone and limestone laid down between c.365 and 313 million years ago. The layer of Millstone Grit sandstone and mudstone, which formed later through erosion c. 326 million years ago, is found as individual spurs within the Pennines resting amongst the Carboniferous Limestone groups. The source of many of the rivers which flow into the Vales are from these Millstone Grit peaks.

East of the Pennine hills is the Permian Ridge which comprises the geological formation known as the Magnesian Limestone Band extending north from Nottinghamshire to County Durham. Formed during the Permian era, roughly 270 to 250 million years ago, Magnesian Limestone, known as dolemite, is limestone containing high concentrations of magnesium. The area consists of ridges of marl, a contemporary rock formation, thus Permian Ridge describes the entire bedrock. Magnesian Limestone is used to describe the band of dolemite bedrock for study (*viz* Roberts *et al*. (2010)). Beneath the Vales of Mowbray and York is the Triassic bedrock, consisting of sandstone conglomerates, which formed 250 to 200 million years ago.

The drift geology of Yorkshire has its origin in the Devensian glaciation between 100 000 years ago and 10 000 years ago. Around 20 000 years ago, almost the entirety of Yorkshire was covered by glaciers. In terms of chronology, the drift geology is more complex and less understood. The process of glacial retreat consisted of movement back and forth over the landscape as multiple ice-sheets gradually receded. It was this process had an enormous effect on the topographical formation of Yorkshire. The process of glaciation is responsible for the large deposition of till throughout Yorkshire. The formation of lakes from glacial meltwater initiated the formation of the various

sand and gravel deposits in the lowlands, the peat bogs and wetlands in the uplands. Glacial meltwater was responsible for the rivers that would become the Dales.

1.2. Yorkshire case studies

There is a vast amount of data collected from Yorkshire's round barrows. Approximately 2500 individual sites are recorded in Appendix 1, the spreadsheet attached to electronic copies of this thesis or otherwise projected to be freely available via the Archaeology Data Service. This information is far beyond the scope of tackling this information in fine detail and the available information about many individual sites is scant. There is a chapter covering the extensive material in summary and examining the broad trends.

To provide greater insight into the overall data there are three case study areas: the Upper Wold Valley, the Ure-Swale interfluve, and the Howardian Hills. All three of these are contained landscapes with surveyed round barrows and ring-ditches including excavated sites. Two of these areas; the Upper Wolds Valley and the Ure-Swale interfluve were examined in landscape studies by other researchers. In both cases, the data collected the relevant material but neither of these research projects engaged directly with Early Bronze Age round barrows. The third case study on the Howardian Hills was selected because there had not been any landscape or monument studies carried out in the past 20 years. This was done to test the method of data-collection and collation relying on the chronological developments of the past 15 years.

The significant influence of the Yorkshire Wolds in British prehistory and its Neolithic barrows provided a wealth of evidence to interpret and discuss. The significant amount of Early Bronze Age material emerging from the Wolds made it a worthwhile area to discuss and examine in more detail. Approaching the material in its entirety should be the focus of a research project of its own. The landscape is more diverse than is credited. The recent examination of the Neolithic round barrows of the Upper Wold Valley by Gibson and Bayliss (2010) and the bounded nature of the valley provide recent literature and an easily examined landscape. The diversity of sources for

published excavation reports of Early Bronze Age round barrows from 19th Century antiquarians and more recent work in the 1990s was added incentive.

Another priority was to examine an areas away from the heavily concentrated landscapes of the Wolds and the North Yorkshire Moors. Recent work at the Neolithic monument complex at Thornborough (Harding, 2013) and publication of the results of archaeological fieldwork at Nosterfield (Dickson and Hopkinson, 2011) made the Ure-Swale interfluve an attractive choice. In addition it is located across the Pennines and in the Vales of York and Mowbray away from the Yorkshire Wolds and the North Yorkshire Moors. The area was the subject of a recent landscape study charting the geological and topographical history of the region (Bridgland *et al*, 2011). The antiquarian excavations carried out by Lukis in the 19th Century and consistent excavation into the 21st Century provided a variety of sources. The significance of the Ure-Swale interfluve during the Neolithic provided comparison with the Upper Wold Valley with its cursus monuments.

The Howardian Hills avoided the highly concentrated North Yorkshire Moors and Wolds. The collected data indicated a very different round barrow landscape. The material from the Howardian Hills was later than both the Upper Wold Valley and the interfluve providing a valuable contrast to the dominance of material from c. 2150-1750 in those landscapes. Other case study areas were considered but the sample sizes outside of eastern Yorkshire were too small with the exception of the Ure-Swale interfluve. The North Yorkshire Moors data had been collected and summarised by Smith (1994). Though it would have been worth evaluating with the recent developments in chronology and relative dating, the North Yorkshire Moors had few contained landscapes with surviving excavated landscapes. Timber plantations caused considerable damage to the area and altered the character of the landscape significantly. There is also less consistency in the North Yorkshire Moors antiquarian material without influential figures such as Greenwell or Mortimer in the rest of Yorkshire. Another case-study from the Wolds was considered but this would have undermined the aim of this thesis to examine round barrows away from their significant influence.

1.3. Round barrows of Yorkshire: architecture, burial, and landscape

This thesis tackles three main research questions; how round barrows come to be, how they typify relationships between the living and the dead, and how they define relations between Early Bronze Age people and their world?

Yorkshire's 2500 sites provide the opportunity to examine the effectiveness of a large-scale approach to the question of sequence. The understanding of the formation of these sites is extremely poor aside from the recovery of artefacts and burials. The development of round barrows and the issues of monument sequences was a key issue that was examined. The role of mortuary archaeology in round barrows is not inconsequential and this thesis does not ignore the research that emerged from the osteological examinations of remains from Yorkshire round barrows. The study of the construction and development of these monuments is neglected despite it informing archaeological understanding of the expression of relationships with the dead in different areas and times.

This segues into the issue of how people in the Chalcolithic and Early Bronze Age periods expressed themselves and social concerns through the medium of the material as well as how they understood it. The landscapes where round barrow monuments were built were significant to the people that built them. This thesis addresses the role of these places and how the round barrows were shaped there and subsequently, shaped their environments.

1.4. Conclusion

The thesis is divided into nine chapters including the Introduction and the Conclusion. There are supplementary appendices containing the data tables for the research available electronically. The second chapter: A historiography of Chalcolithic and Early Bronze Age round barrows in Britain examines the current and previous archaeological approaches round barrow monuments. This chapter examines archaeological literature on round barrow structure, associated artefacts, and interpretations of mortuary practice between c. 2500-1500 BC. This is followed by the third chapter: Round Barrows in Yorkshire that examines the history of research in Yorkshire concentrating

on excavation and describes the methodology and the influence of previous literature in this thesis. This concludes the groundwork and the following chapters address various aspects of the Yorkshire round barrow material. Analysis at the large scale, describes and outlines the overall evidence from the entire dataset using maps, tables, and charts to summarise the information collected. This is followed by the first case-study: the Upper Wolds Valley described above. The chapter focuses on the interaction between the barrows, Neolithic monuments and artefacts, burials, and site sequences. The sixth chapter: the Ure-Swale Interfluve tackles the round barrows in the area, their relationship with each other and the existing Neolithic monuments. The last case study chapter: the Howardian Hills approaches a different landscape with less previous research despite its proximity to the Wolds and the North Yorkshire Moors. These three case-study chapters and the broad trends are discussed in relation to the research questions of the thesis in the Discussion. These are taken further with suggestions for further research and a retrospective in the Conclusion.

Chapter 2. A historiography of Chalcolithic and Early Bronze Age round barrows in Britain

2.1. Introduction

This chapter summarises the history of interpretation of round barrows in British Late Neolithic, Chalcolithic, and Early Bronze Age archaeology. This background of research concentrates on three key elements: structural features and architecture; typological and chronological artefact analysis and interpretation; and appreciations of round barrows as part of prehistoric landscapes. It addresses the typologies and related chronologies of features associated with round barrows in particular ceramic and metalwork finds. Finally this chapter examines pertinent studies of the role and treatment of the dead during the Chalcolithic and Early Bronze Age as these form a significant proportion of the literature on round barrows.

2.2. Mound material and morphology

When research into burial mounds began many of the earliest scholars attempted to define the most common round barrow types and associated structures. While burial mounds contain a number of features which could be classified as prehistoric monuments in their own right, this research began with the external morphology of barrows. The most influential early scholar to catalogue the external forms of burial mounds was John Thurnam who examined sites in Wessex. He proposed three major types of burial mound: 'bowl-shaped', 'bell-shaped', and 'disc-shaped' further divided into three sub-categories.

From bowl barrows, Thurnam derived 'simple bowl barrows' along 'trenched bowl barrows ringed by a circular ditch' and 'oval, or composite barrows'. The latter were also surrounded by a trench but similar in form to Neolithic long barrows (1871, p. 296). Thurnam suggested that oval barrows were the result of the composite of several mounds rather than an adaptation of the long barrow form. Trenched bowl barrows were a midway point in the typological transition from 'bowl-shaped' to 'bell-shaped mounds' (1871, p. 296). 'Bell-shaped barrows' were named for their distinctive outline caused by the gap between the mound and the circular ditch surrounding it. The twin

and triple types of ‘bell barrows’ were those with two or three mounds within close proximity all sharing the distinctive bell-shaped profile. The final type: ‘disc-shaped barrows’ comprise a circular bank surrounded by ditch around the outside. Internally these barrows have very small mounds barely 0.30 metres in height. The exception were ‘disc-shaped barrows with a single large mound’, which uncommon and could be another type of burial mound surrounded by both a ditch and a bank. Thurnam felt unable to confidently distinguish between the ‘simple disc barrows’, and their typological relations with and without small mounds (1871, p. 300). Regardless, this was the first taxonomy of its kind and his morphologies are shown in Table 2.1 below.

Category	Sub-category
Bowl-shaped barrows	Simple bowl-barrows
	Trenched bowl-barrows
	Composite, or oval barrows
Bell-shaped barrows	Simple bell-barrows
	Twin barrows
	Triple barrows
Disc-shaped barrows	Simple disc-barrows
	With one or more small central mounds
	With one larger mound covering the area

Table 2.1: Barrow mound morphologies (Thurnam, 1871)

Thurnam’s nine category typology became the standard amongst his peers and continued to be so until the early part of the 20th century. From surveying sites across southern Britain, Grinsell proposed seven types of round barrow in the first edition of *The Ancient Burial Mounds of England*: ‘bowl-barrows’, ‘bowl-barrows with outer banks’, ‘bell-barrows’, ‘bell-barrows with outer banks’, ‘disc-barrows’, ‘saucer-barrows’, and ‘pond-barrows’ (1936, p. 18). These are illustrated

in

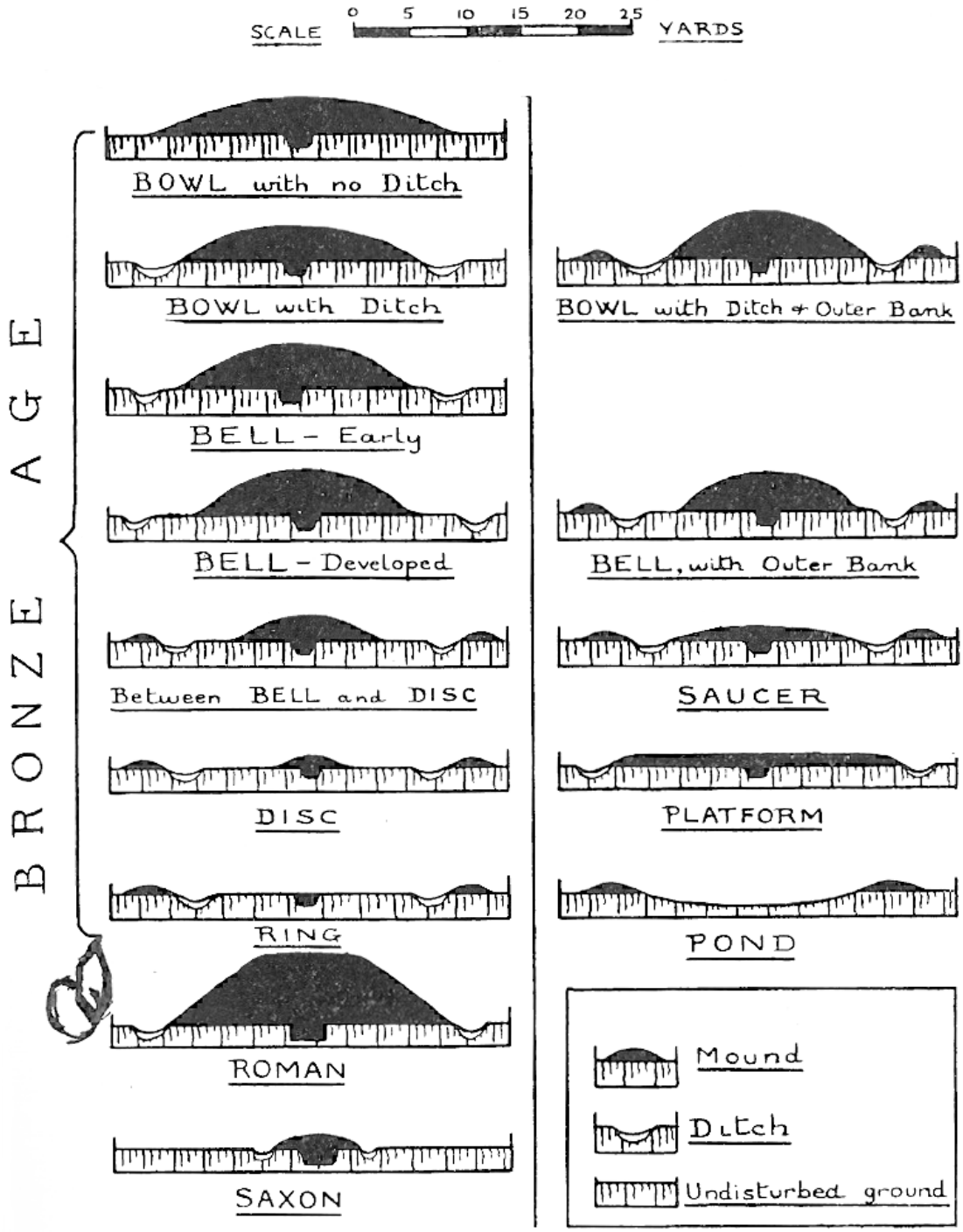

Figure 2.1 below.

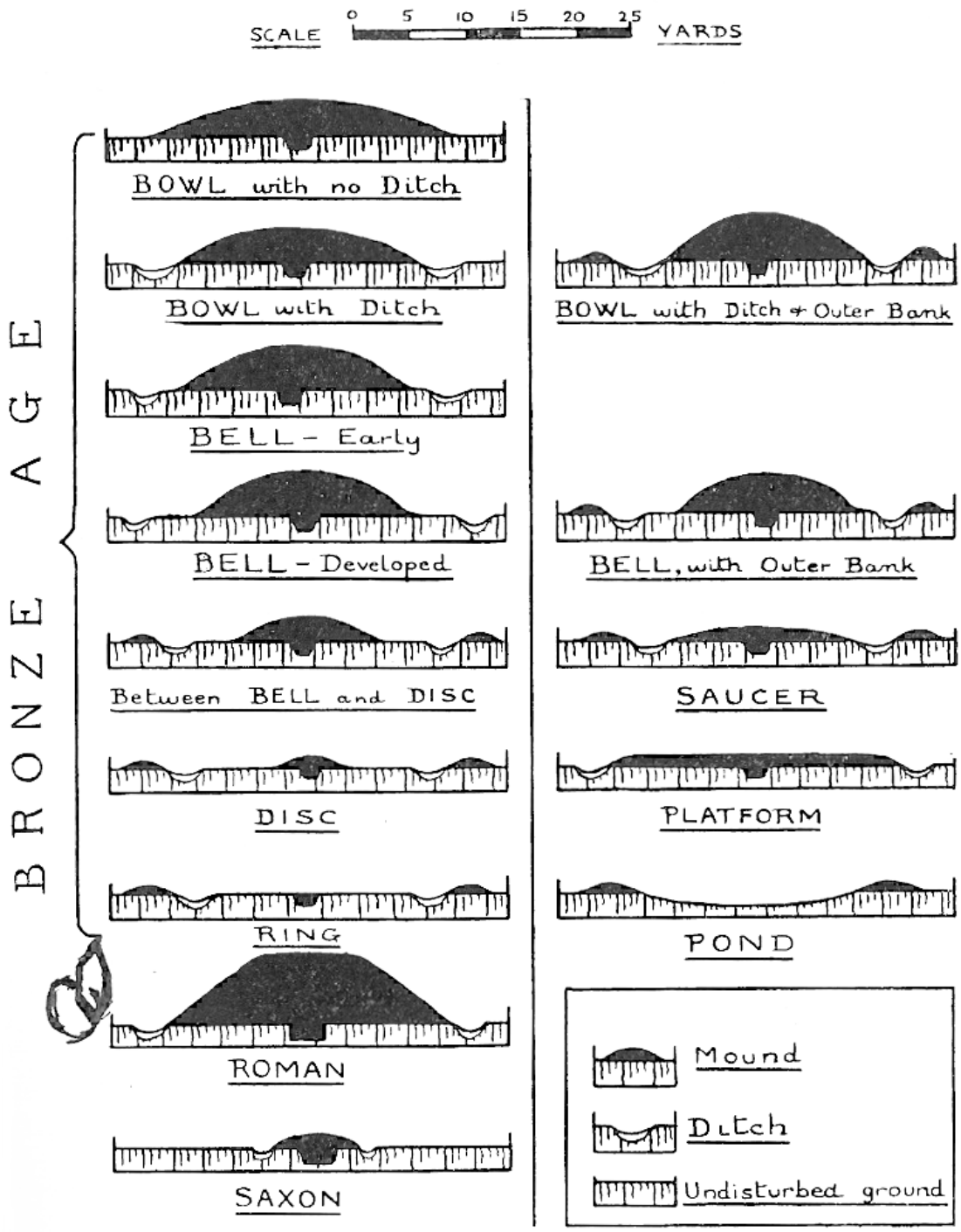

Figure 2.1: Barrow mound morphologies (Grinsell, 1936, p. 17)

'Bowl-barrows' and 'bell-barrows' are similar to Thurnam's 'simple bowl-shaped barrows' and 'bell-shaped barrows'. However 'bowl-barrows with outer banks' and 'bell-barrows with outer banks' identify Thurnam's 'disc barrows with a single large mound' with different morphological categories. 'Disc-barrows' are also expanded substantially into 'saucer' and 'pond' barrows (1936, p. 23). Similar to Thurnam,

Grinsell incorporated multiple mounds as distinct categories in his burial mound typology, especially with his bell and disc barrow types (1936, p. 20, 22).

While both Thurnam and Grinsell relied primarily on evidence from Wessex and southern Britain to create their typologies, Paul Ashbee simplified Grinsell's typology drastically by drawing on a wider range of material throughout Britain and dividing round burial mounds into two main forms. In *The Bronze Age Round Barrow in Britain* (1960), Ashbee categorises burial mounds into 'bowl barrows', and 'Wessex barrows' and like Grinsell and Thurnam further refines these broad forms into discrete categories as shown in Figure 2.2: Ditchless bowl barrow (Ashbee, 1960, p. 25)Figure 2.2 to Figure 2.4 below:

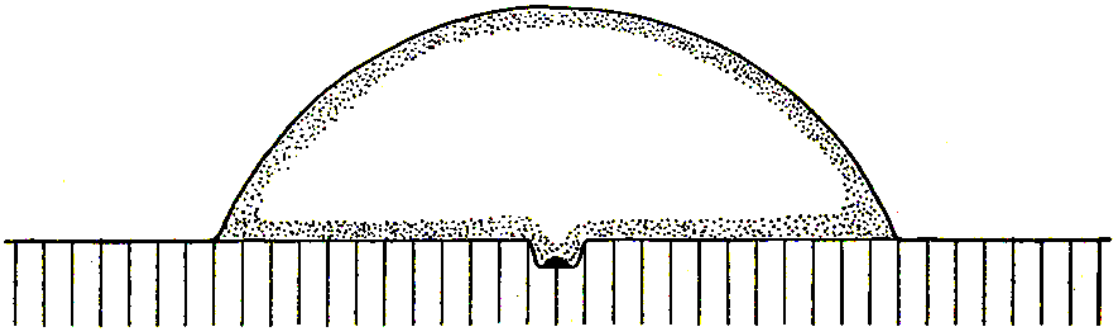

Figure 2.2: Ditchless bowl barrow (Ashbee, 1960, p. 25)

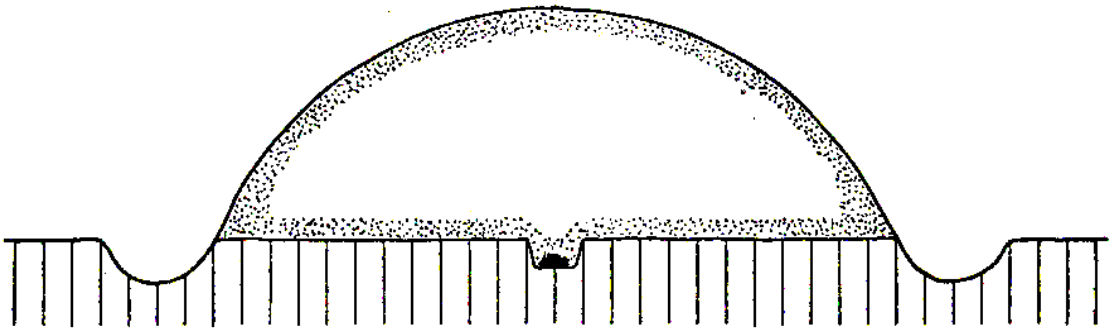

Figure 2.3: Ditched bowl barrow (Ashbee, 1960, p. 25)

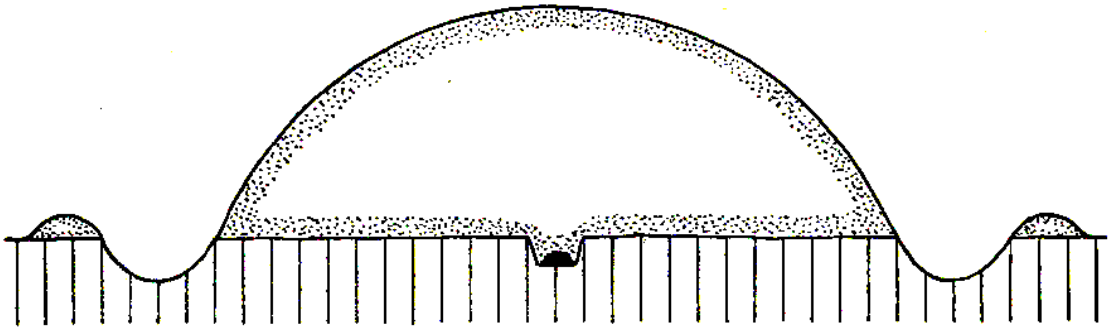

Figure 2.4: Bowl barrow with a ditch and bank (Ashbee, 1960, p. 25)

'Wessex barrows', found mostly in southern Britain, include three individual categories: 'bermed[1] barrows', 'pond barrows', and 'saucer barrows'. All 'bermed barrows' are divided into three further typologies: 'bell', 'disc', and 'bell-disc'. The external mound morphology is identical to bowl barrows but the three sub-types differ in the space between the mound and ring-ditch. 'Bell barrows' have a smaller gap giving them their distinct silhouette and 'disc barrows' have a much wider space, while 'bell-disc barrows' exist as a medium between the two. This is shown clearly in Figure 2.5, Figure 2.6, and Figure 2.7 below.

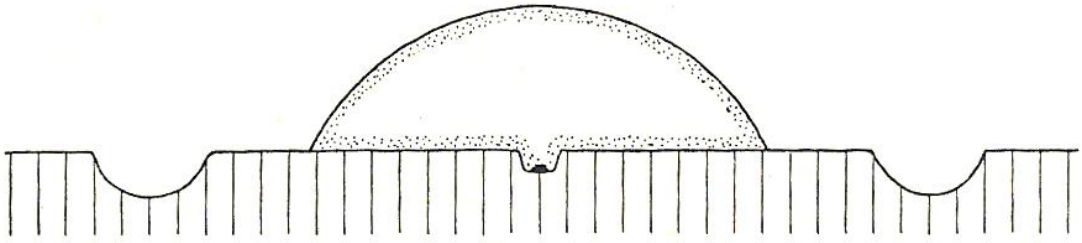

Figure 2.5: Bell barrow (Ashbee, 1960, p. 25)

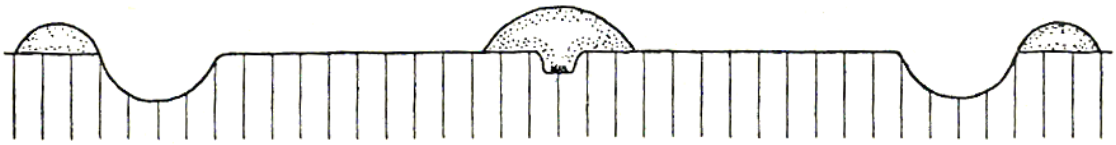

Figure 2.6: Disc barrow (Ashbee, 1960, p. 25)

[1] A berm is a short gap between an earth ditch and bank emplacement that maintains structural integrity. The term is commonly associated with military engineering in relation to fortifications.

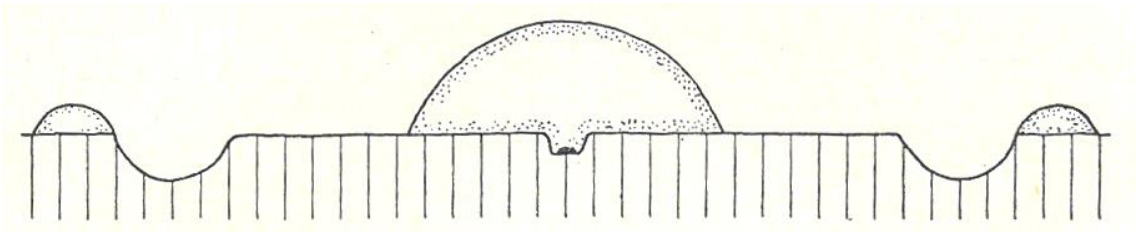

Figure 2.7: Bell-disc barrow (Ashbee, 1960, p. 25)

Ashbee identified two further Wessex-type barrows (1960): 'pond' and 'saucer'. These are marked by ringed banks surrounding either a shallow dip, or an internal ring-ditch with a shallow central mound. The difference between the two is shown in Figure 2.8 and Figure 2.9 below.

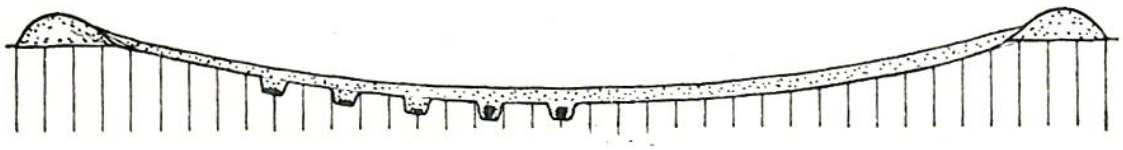

Figure 2.8: Pond barrow (Ashbee, 1960, p. 25)

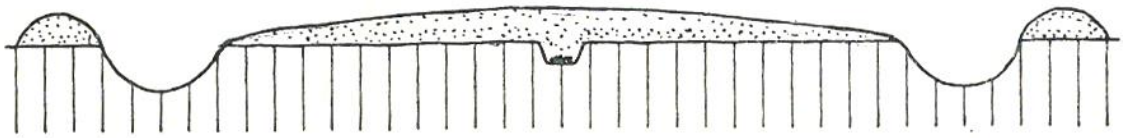

Figure 2.9: Saucer barrow (Ashbee, 1960, p. 25)

There are two main issues with the approaches of Grinsell (1936) and Ashbee (1960). Firstly their external mound morphological typologies still rely on a sample mainly collected from southern Britain. Secondly and most significantly although both Grinsell and Ashbee appreciated the role of sequence in the formation of individual mounds; overall, they did not engage with the possibility that those construction practices were chronologically or spatially situated.

Both of these issues are problematic as their concepts were adopted wholesale for approaches by their contemporaries nationally particularly in field survey without an understanding how these structures might have developed organically over time or might embody particular practices tied into the landscape these monuments were constructed within. In the case of Ashbee (1960) the bowl and bermed barrow morphologies were applied across Britain generally. Neither Ashbee nor Grinsell developed the role of time in barrow mound development in depth. It is never clear

how the mounds they discuss result from a sequence and what effect those events would have on a site's construction. Although Grinsell (1936) was aware that some round barrow mounds might have been developed over a longer period of time than others. Unfortunately neither of these approaches had strong absolute or relative dating for the development of round barrows.

Drawing on absolute dates from southern Britain, Garwood proposes a monument chronology for the features identified in Early Bronze Age round barrows based on the examination of multi-phase mounds, post and stake circles, 'open arena' sites, and single-phase barrows (2007). The complete chronology is summarised in Table 2.8 at the conclusion of this chapter.

Garwood defines a multi-phase barrow as one where the sequence of construction and deposition can be established from at least two major features associated with secure datable material. Single phase barrows by contrast consist of a mound and a single burial that likely coincide as one event. Finally 'open-arena' monuments include sites that could be classed as disc barrows as well as ring-cairns.

Multi-phase barrow chronology breaks down into two different main phases (2007, p. 32); the first is the initial activity at the site which could take place at any point between the beginning of the fourth and the end of the third millennia BC. Although these structures have Neolithic origins and regardless of when they were constructed their mounding occurs between c. 2100 and 1800 BC. This is the second major phase in the multi-phase chronology and which in southern Britain coincides with an intense period of grave goods deposition in burials. This trend slows down by the latter part of the Early Bronze Age (c. 1800 BC onwards) when adaptations and amendments are very rarely carried out on existing mounds.

According to Garwood (2007) single-phase round barrows are more common prior to c. 2100 BC. These burial mounds are smaller and they lack ring-ditches or only have a few trenches to form causeways to the centre of the barrow. Between c. 2100 BC and c. 1800 BC many round barrows were expanded and enlarged to become multi-phase barrows, there were sites that for various reasons were not expanded. After c. 1800 BC until c. 1500 BC, single-phase mounds became more popular than expanding existing

barrows. Although these barrows were much more elaborate than single-phase monuments constructed prior to c. 2100 BC with ring-ditches and outer banks. Regarding individual site sequences, compared to multi-phase round barrows, single-phase burial mounds were completed within a relatively brief space of time (Garwood, 2007, p. 36-37).

The use of materials in burial mound construction represents deliberate choices informed by a number of factors. It is part of the round barrow feature set relating to ring-ditches, kerbs, and stake circles as well as others. These inform the deployment of these elements and the material used in burial mound construction.

Grinsell discussed the material composition of burial mounds in his chapter on the construction process of round barrows (1936, p. 58-59). He distinguished between cairns and earthen mounds. Rather than addressing the diversity of materials involved, he focuses on answering the question of how barrow mounds were constructed. Ashbee identified and incorporated three differing material elements of mounds: earthen, cairn and composite, directly into his typology of barrow forms (1960, p. 24, 41).

Earthen mounds were constructed from the excavated spoil from ring-ditches, by gathering surrounding soil into a mound, or stacking turves into a mound; while cairn mounds are constructed of stone, occasionally covered over by soil, and finally, composite burial mounds combine the earth and stone compositions and features of earthen mounds and cairns (Ashbee, 1960, p. 41-59).The representative sections of these mound types are shown in Figure 2.10 to Figure 2.12 below:

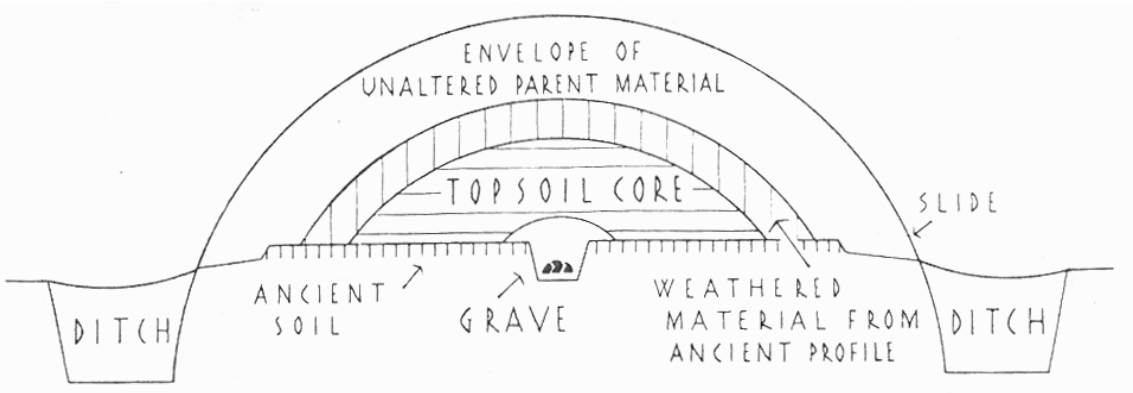

Figure 2.10: Earthen barrow representative section (Ashbee, 1960, p. 42)

Figure 2.11: Cairn representative section (Ashbee, 1960, p. 42)

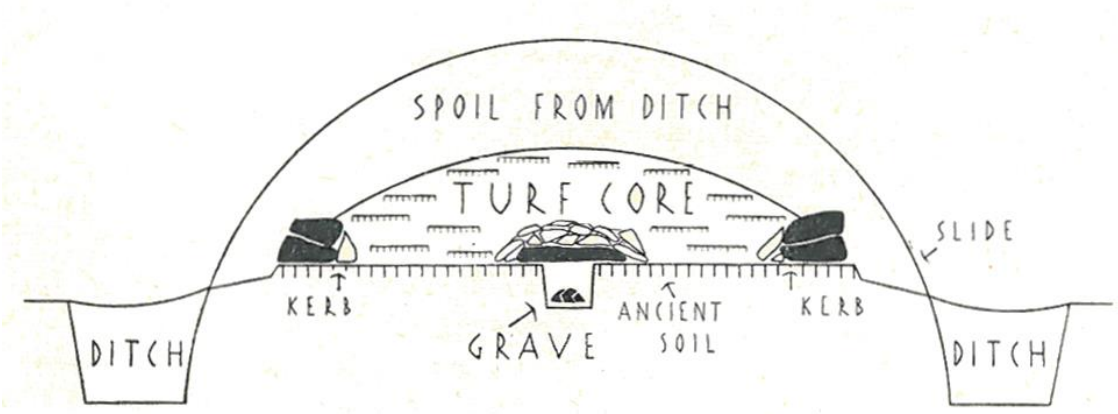

Figure 2.12: Composite barrow representative section (Ashbee, 1960, p. 42)

These works do not address the question of why materials were chosen. Interpretive studies by archaeologists such as Garwood (1991); Barrett (1994), and Lynch (1998) have suggested the role of colour at various Bronze Age sites. Owoc has proposed the role of aesthetics and its relationship to colour as significant to the formation of round barrow mounds in south-western Britain (2002). She discusses the importance of colour in selecting building materials and how they are aged and weathered to change their original aesthetic qualities or obscure them entirely. From the use of yellow found in the St. Austell granite bed used in burial mound construction and the astronomical alignment of the round barrow sites, Owoc argues that the choice of materials represented a relationship with the sun (2002, p. 135-137). The significant point is that the use of building material can represent possibilities above and beyond simple pragmatism. The use of stone or earth in a round barrow mound could represent a significant ritualistic or spiritual aesthetic choice.

2.3. Round barrow architecture

Architecture and mound material are interdependent on some level. Ashbee identified ring-ditches as quarries for earthen burial mounds and differentiated them based upon local geologies (1960, p. 44-45). Grinsell noted that ring-ditch fill was applied to mounds in the final stages of their construction (1936, p. 59). Ian Kinnes' study *Round Barrows and Ring-ditches in the British Neolithic* catalogued the available evidence for barrows and ring-ditches into a typology with various stages ranging from A – F (1979). This was one of the earliest studies on the role of round barrows and ditches as ritual monuments in the Neolithic. Kinnes proposed that ring-ditches separated mortuary sites as ritually-significant spaces and this practice continued into the Early Bronze Age (1979).

A more recent interpretive approach by Jacqueline Nowakowski proposed that ring-ditches acted as 'technologies of remembrance': mnemonic aids for ritual practice (2007). She drew on the deposition of pottery sherds that had been deliberately broken and then inserted into the ring-ditch of the barrow. Nowakowski suggested that this act embedded meaning and memory as was the act of constructing the ditch (2007). This is fascinating but extremely difficult to prove elsewhere as ring-ditches remain chronically under-studied. In field-survey or early antiquarian excavation only the presence of a ring-ditch either internal or external to the mound is noted.

Rarer features are much better studied. For example, stake and post-circles have been recovered under round barrow mounds since they were first identified by Mortimer under his barrow 23 (1905, p. 153-156). They resemble timber circles and research has focused on them as free-standing monuments. In many cases throughout Britain those sites were gradually replaced by stone circles during the Early Bronze Age (Pearson, 1998; Bradley, 2007). Ashbee attempted to distinguish them into six different types shown in Figure 2.13 below.

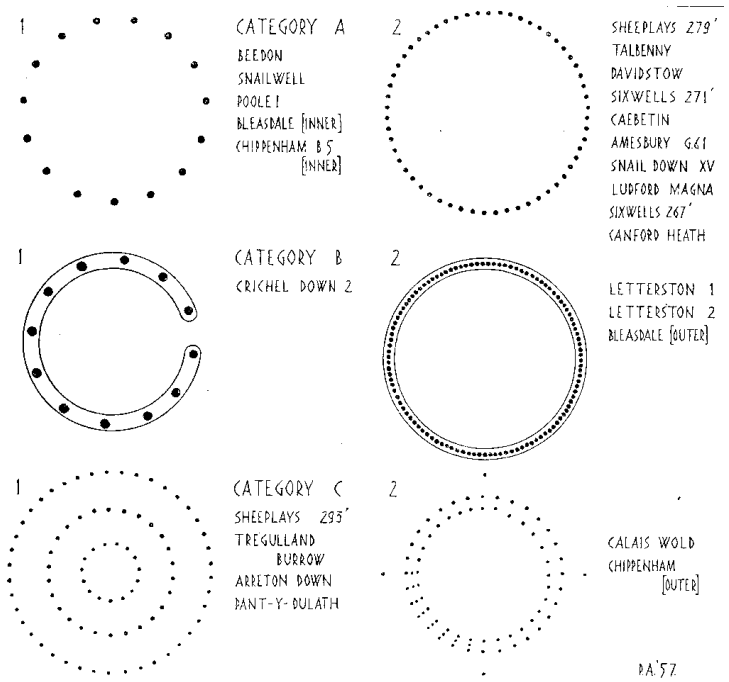

Figure 2.13: Stake-circle categories (Ashbee 1960, p. 65)

Ashbee based these forms on the frequency of stake-holes within the circle and the presence of other features: i.e. ditches, or other stake-circles (1960, p. 64-65).

Stone circles are one of the most well-known prehistoric monuments with extensive literature outside of their relationship to round barrows. Within burial mounds, stone circles are less common. Ashbee classifies them as ‘stone rings’ in relation to kerbs and ring-cairns (1960, p. 49-51). It is difficult to distinguish between these features; the categories are defined by the size and proximity of the stones.

Frances Lynch defined categories for circular cairns and similar stone monuments, identifying: ‘ring-cairns’, ‘complex ring-cairns’, ‘embanked stone circles’, ‘stone circles’, ‘cairn circles’, ‘kerb circles’, and ‘cairn rings’ (1972, p. 63-64).

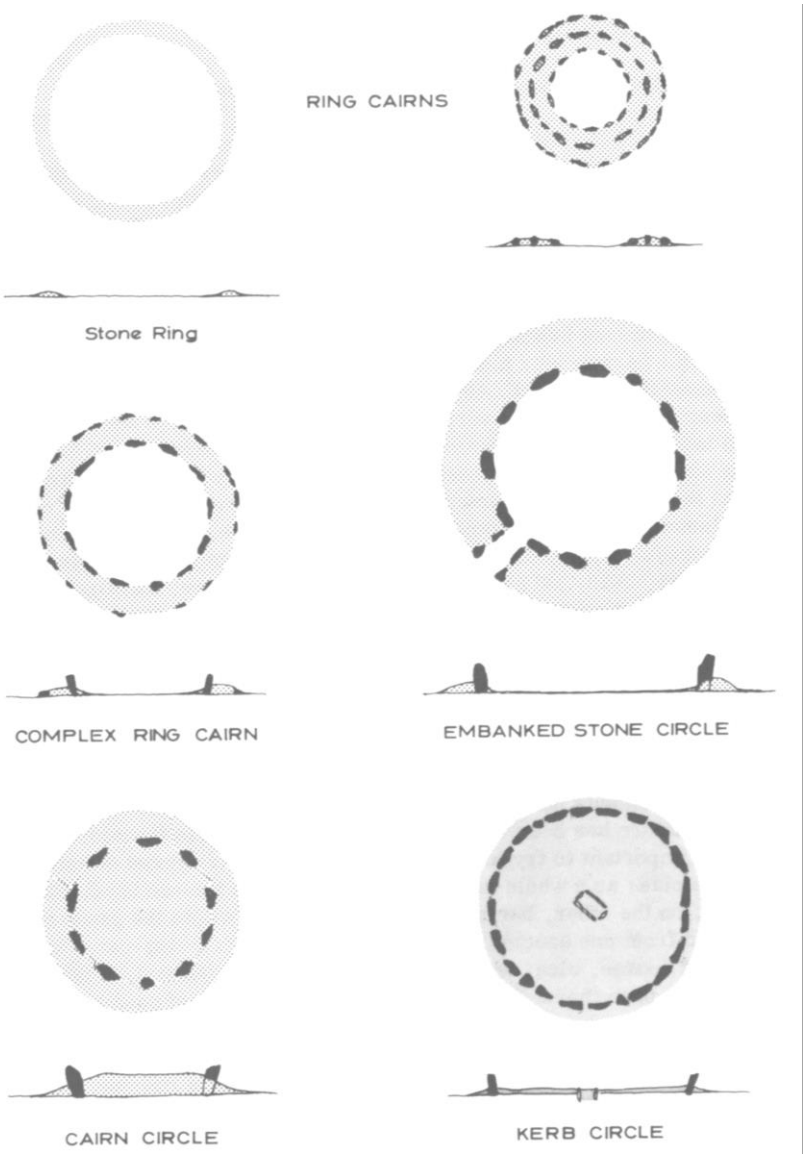

Figure 2.14: Ring cairns and related monuments (Lynch, 1972, p. 62)

Only 'cairn rings' are found in round barrows. Lynch observed the difficulty in classifying these monuments; many examples of the various categories have mounds at their centre and barrows and ring-cairns are found in close proximity in her study area: Wales. Mortuary practice within ring-cairn monuments was very different than that practiced in barrow mounds (1972). Expanding her research, Lynch drew parallels between the north of England and the Welsh material (1979); grouping the ring cairns as 'variant circles', including kerb circles, cairn circles, and cairn-rings in comparison with 'open stone circles' as funerary/ritual monuments.

Garwood condensed cairn-rings and stake-circles into 'open arena' monuments along with 'saucers' and 'ponds' barrows. Although they were used and constructed

throughout c. 2500-1500 BC, these sites were not drawn into mortuary practices until c. 2100 BC (2007, p. 34-36). It was after c. 2000 BC that 'open-arena' monuments were purposefully constructed for mortuary practice coinciding with the development and spread of flat-grave cemeteries and the use of open areas for burial (2007, p. 36). This is contemporary to the capping of burial mounds. Garwood proposes that there was an increase in the elements of performance and spectacle in mortuary and funerary practice. During this period, the architectural configurations of open-arena monuments become more complex. These places are not perceived as round barrows by their builders but a new set of priorities is invoked at stake-circles and ring-cairns.

Ashbee and Grinsell's external morpho-typologies have fallen by the wayside in current archaeological thinking. They obscure the understanding how round barrows came to be and why. It obfuscates the processes barrows underwent to arrive in their present form. This determinism strips the site of architectural nuance. Underpinning the external form of burial mounds are the material components and structural features of the barrow itself. Drawing on these associated features embraces a more modular approach. Both Grinsell and Ashbee appreciated barrow sequence but their approaches and those of their predecessors were less productive for understanding how round barrow architecture functioned during the Chalcolithic and Early Bronze Age periods.

Appreciating the architectural components of round barrows provides chronological context and the understanding of sequence addresses questions of round barrow development. Considering round barrows as a composition of modular elements allows a better appreciation of the sequences and is less deterministic than the morphological approaches. Addressing mounds as an element of round barrow construction in combination with other useful markers of chronology such as burial practice or artefact typologies is a tailored approach to Yorkshire round barrows to be easily compared with findings from other regions in Britain.

2.4. Chalcolithic and Early Bronze Age artefacts studies

The rich assemblages within round barrows instigated the antiquarian and subsequent archaeological interest in these monuments. Consequently much scholarship has been

devoted to the objects recovered from burial mounds. In particular ceramics, metalwork, and adornments of jet and bone are all common to Chalcolithic and Early Bronze Age graves. This section focuses on key diagnostic objects with relatively strong typologies which have been the subject of recent research and analysis. This will provide a basis for dating round barrows and burials further in the thesis.

2.4.1. Ceramics

Pottery vessels are the most significant category of artefacts to identify chronological context. Extensive research on pottery in prehistory has led to the classification of several ceramic typologies from the Chalcolithic and the Early Bronze Age in Britain.

Thurnam identified four Bronze Age pottery traditions: drinking-cups, food vessels, incense cups and cinerary urns (1871). They correspond broadly to the same ceramic traditions identifiable in the present. Between c. 2500 and 2250 BC, the vessels known as Beakers appear in British archaeological contexts. This marks the transitional Chalcolithic period. Over the extent of their usage through to 1900/1800 BC, they coincide with other Early Bronze Age pottery types such as Food Vessels and Collared Urns.

The drinking cup tradition was divided by Thurnam into three main styles: α (High brimmed globose cups), β (Ovoid cups with recurved rims) and γ (Low brimmed cups) (1871). In 1904, Lord Abercomby published: *A proposed chronological arrangement of the Drinking-Cup or Beaker class of fictilia in Britain*, which first named these pottery vessels 'beakers'. He produced the first corpus of Beakers (and other Early Bronze Age pottery) in *A study of the bronze age pottery of Great Britain & Ireland and its associated grave-goods* (1912). Abercromby categorised the vessels along Thurnam's lines but labelled them A, B, & C. He further proposed that there was a direct chronological progression from A to C (1912). This tripartite chronology, inspired by Thurnam and developed by Abercromby, formed the basis of Beaker vessel typology until the publication of Clarke's *Beaker Pottery of Great Britain and Ireland* (1970).

Clarke rejected Thurnam's' divisions and Abercromby's progression as they had become increasingly unwieldy. Amendments had been made to their scheme: Stuart Piggott divided the B category into B1 and B2, and Vere Gordon Childe added an additional category: B3. Clarke divided Beakers into seven typologies: All-Over Cord (AOC), European (E), Wessex-Middle Rhine (W/MR), Northern British-Middle Rhine (N/MR), Northern British-North Rhine (N/NR), Barbed-Wire (BW) and Primary Northern British-Dutch (N1/D) (1970). He used the availability of radiocarbon dating to place the introduction of the Beaker culture at c. 2100 BC and defined two major influxes of the Beaker tradition occurring in the periods: c. 2100 – 1900 BC, and c. 1800 – 1700 BC (1970, p. 273-274). The initial wave consisted of peoples utilising the AOC and E vessels. The second influx, c. 1800 – 1700 BC, brought the Wessex tradition: (W/MR), the Northern British traditions (N/MR & N/NR), and the Barbed-Wire and Primary Northern British-Dutch Beaker traditions (Clarke, 1970, p. 277-278). Clarke revised the chronology of the Neolithic dividing it into four periods: the Early (c. 3100 – 2600 BC), Middle (c. 2600 – 2100 BC), Late (c. 2100 – 1800 BC), and Final (c. 1800 – 1400 BC). As others have noted (Gibson, 1982), Clarke's Neolithic period overwrites the traditional Early Bronze Age and was never taken up with any enthusiasm.

Clarke proposed that the first wake of Beaker users were "simple peasant agriculturalists" and metallurgists from the Middle and Northern Rhine who travelled along pre-established trade routes (1970, p. 276). Individual groups brought their own pottery traditions. The later incursion introduced five of Clarke's typologies of Beaker into Britain. As an analysis of typology, *Beaker Pottery of Great Britain and Ireland* was comprehensive but even by the standards of his contemporaries, seven different ethnicities migrating and settling was somewhat contrived. This was criticised by Dutch archaeologists Lanting & van der Waals (1972); however, they drew on his typology and combined associated radiocarbon dates from both the Netherlands and Britain to produce a more detailed seven step chronology. Although they only took dates from the Wessex area (Lanting & van der Waals, 1972; Gibson, 1982).

Clarke's interpretations raise the question of Beaker origins. During the 1970s, many British archaeologists believed that Beaker vessels evolved from the Single-Grave and

Corded Ware pottery traditions of the Lower Rhine and spread across most of Western Europe (Lanting & van der Waals, 1972). Clarke harked back to an earlier era and ideas popularised by Vere Gordon Childe who believed that Beakers were introduced by migrant warriors who conquered and settled in Northern Britain (1930). Childe identified the difference between cranial morphology of remains uncovered in long barrows and round barrows which he thought overlapped. This was not unreasonable as Beaker evidence had been excavated from long barrows. Childe proposed that the Beaker folk, who practiced single grave interment and metallurgy, eventually overcame and interbred with an indigenous Neolithic folk. These ideas were extremely influential prior to the introduction of radiocarbon dating. Stuart Piggott suggested that Beakers were introduced by the Wessex culture, a migrant Breton aristocracy who established themselves in southern Britain and introduced single-grave burial only to abandon it as it began to be adopted by the indigenous population around them (1938). By the time *Beaker Pottery of Great Britain and Ireland* was published many archaeologists rejected physical migration as an explanation for the spread of Beaker pottery.

In his synthesis of contemporary scholarship on the British Neolithic and Bronze Age, Burgess (1980) acknowledged the validity of Lanting & van der Waals' seven-step chronology but was sceptical of the clear division they produced from the limited number of viable British radiocarbon dates. He proposed more overlap between the various stages rather than linear, progressive development from steps 1 through 7 (1980, p. 66). Burgess co-authored a paper with Stephen Shennan four years prior that proposed that Beakers were part of a cult package and that transmission of the vessels was by initiation and movement of individuals rather than larger groups (1976). By 1980, Burgess argued in *The Age of Stonehenge* that Beakers contributed very little to wider society during the Early Bronze Age and were coincidental rather than instrumental to the change occurring at that time (1980).

In 1991, the results of a project established by the British Museum were published (Kinnes *et al*., 1991). It was intended to define more precise radiocarbon dates from articulated human remains in Beaker contexts to assess the validity of the various

typo-chronologies. They uncovered no correlating patterns than that the usage period of Beaker pottery was between c. 2600 – 1800 cal BC (Kinnes et al., 1991). They recommended that the sample size be increased and that more data was needed from areas such as Yorkshire. This stymied the study of Beaker pottery in British archaeology and led to a reappraisal of ideas of physical migration. Examining the skeletal material from the Early Bronze Age Brodie (1997) argued that inter-marriage between Chalcolithic and Neolithic groups might explain the transmission of Beaker vessels. Archaeologists turned to mainland Europe to examine Beaker origins more closely. Case proposed a system of quarter-millennial intervals to track typological changes in Beaker vessel design and diffusion based on earliest examples uncovered in the Iberian Peninsula. Case suggested that the Maritime Beaker was inspired by the North African, Corded Ware and Single-Grave traditions with whom the people of the Tagus Estuary in contact (Case, 2004).

Stuart Needham proposed a chronology for British Beakers based upon more recent radiocarbon dates (2005).His tripartite chronology follows a broad narrative of uptake, dispersion and disinterest from a starting point of c. 2500 BC, when Beakers were a circumscribed, exclusive culture tied closely to mainland Europe. At this point, they coexisted with the pre-existing Grooved Ware style. In c. 2250 BC, they became an instituted culture which represents the zenith of the Beaker culture. Ironically the vessel itself began to decline in importance as an indicator of 'Beaker-ness' (Needham, 2005). Beakers become a past reference in c. 1950 BC and the decline is significant; only a minority of sites potting in this style (Needham, 2005, p. 210). The Food Vessel and the Urn traditions continue to co-exist throughout this final period until they dominate by the mid-point of the second millennium BC. Needham rejected Clarke's stylistic typology and defined six styles within the Beaker tradition: Low-Carinated (LC), Tall Mid-Carinated (TMC), Weak-Carinated (WC), Short-Necked (SN), Long-Necked (LN), and 'S'-Profile (SP). He postulated a fission horizon that divides Beaker material culture into two thematic groups (2005). The earlier, primary phase is associated with the LC style. In c. 2250 – 2150 BC the funerary material diversifies into the other styles, there is an increase in Beaker burials from c. 2250 – 2000 BC but a marked decrease in the inclusion of the vessel in 'rich' graves (Needham, 2005, p. 210).

Due to their pan-European distribution, Beakers have received a great deal more attention than Food Vessels and Collared Urns. These more recent traditions continue into the Early Bronze Age when Beakers fall out of use and are focused around Britain and Ireland. Food Vessels were chronically understudied until very recently. In 1968 Derek Simpson could only draw on one radiocarbon date for this tradition. From the work of his contemporaries, he posited that their range was between c. 1650-1400 BC. Subsequent ongoing research by Anna Brindley and Jan Lanting improved the situation with work in Ireland compiled and established radiocarbon dates for a number of Food Vessel contexts. Needham (1996) established that the British Food Vessel tradition dated to c 21/22nd Century BC, reached its zenith c. 2050 -1700 BC, and wasf superseded by the Collared Urn c. 1700 – 1500 BC.

More than two decades on this chronology still holds up in broad terms. Due to their association with cremation burials Food Vessels were part of Historic Scotland's *Dating Cremated Bone* project. Sheridan identified a chronology for Food Vessels in Scotland that could be applied for the rest of northern Britain (2004; 2007). The earliest Food Vessel types are the Bowl traditions that begin c. 2150 BC and fall out of use c. 1900 BC. By c. 2100 BC, Vase types emerge followed by Urns in c. 2050 BC and both decline c. 1700 BC.

Collared Urns are found in funerary and domestic contexts in Britain. They have received a modicum more attention in comparison to Food Vessels. Longworth's corpus *Collared Urns of the Bronze Age in Great Britain and Ireland* followed the example of Clarke's work on Beakers (1984). He suggested the range for Collared Urns' was between 1800 and 1100 BC. This would skirt the end of the Early Bronze Age. Burgess criticised this scheme and proposed a different typological scheme of dating of Early, Middle and Late Collared Urns (1986). The Early style has carination typical of Food Vessel pottery and internal decoration. The Middle and Late styles are less elaborate eschewing internal decoration and carination (Burgess, 1986, p. 347-348). Radiocarbon studies of Collared Urn contexts carried out as part of the *Dating Cremated Bone* project, indicated a range between c. 1900 and 1600 BC (Sheridan, 2007). Unfortunately for Collared Urn typologies, absolute dating evidence indicates a

great deal of crossover between Early, Middle, and Late (Sheridan, 2007). There is no strong typological distinction between Collared Urns at the time of writing.

Another type of vessel is the Accessory Cup that accompany larger Food Vessels, Beakers, or Collared Urns. In many cases they are found in mortuary contexts in their own right. Longworth categorised them in *Collared Urns of the Bronze Age* but regarded them as supplementary to Collared Urns. He created a typology for these vessels dividing them into eleven types (1984) that Gibson reduced to ten different styles (2004b, p. 272).

No.	Description
1	Thumb cups with rounded bases similar in form in crucibles
2	Splayed cups with flaring sides and comparatively narrow bases
3	Vertical-sided cups
4	Globular hemispherical or closed cups
5	Distinctly shouldered biconical cups
6	Miniature vase Food Vessels
7	Miniature Collared Urns
8	Fenestrated wall cups
9	Grape cups
10	Aldbourne cups

Table 2.2: Bronze Age cups typology (Gibson, 2004b)

Gibson argued that the poorer quality of many cups indicated that they were thrown by inexperienced potters and fired during the cremation of the dead (2004b). Currently Accessory Vessels have an extremely wide date-range of c. 2000-1500 BC and very little has been done to contextualise the typologies.

2.4.2. Metalwork

The introduction of metalwork has been connected repeatedly with the Beaker tradition. Burgess (1980) defined three metal-using periods for the Early Bronze Age: Mount Pleasant (c. 2700 – 2000 BC), West Overton (c. 2000 – 1700 BC), and Bedd Branwen (c. 1700 – 1400 BC). Copper tanged-daggers were introduced with the

'Beaker Package' during the Mount Pleasant period but Burgess established that a British/Irish flat axe tradition became established fairly rapidly (1980, p. 72). These were used to identify stages of metallurgical development, named after the sites where diagnostic artefacts were excavated e.g. Castleton Roche (Stage I), Knocknague (Stage II), Frankford (Stage III), Migdale-Killaha (Stage IV) and Ballyvalley-Aylesford (Stage V) all encompassed the Mount Pleasant and the beginning of the West Overton periods.

Needham examined the totality of the British Bronze Age and applied this model to a chronology that took into account various other phenomena: radiocarbon curve calibration fluctuations, other artefact types, monuments and took it into the Iron Age (1996). Metalwork Assemblages are interlinked artefact groups defined primarily through axe typologies and associated finds that described the processes of manufacture and usage. Needham identified six main classes of metalwork: axes, small tools (knives, razors and awls), daggers, halberds, spearheads and ornaments (beads, bracelets, etc.), which he further divided into two sets associated primarily with mortuary and hoard contexts (1988).

Needham established that, for the Early Bronze Age in Britain and Ireland, there were six Metalwork Assemblages (MAI-VI; 1996). The first two Assemblages were copper artefacts: I's hoards were Castleton Roche and Lough Ravel trapezoidal axes initially, with II consisting of more complex variations: copper axes again, but including halberds, daggers, knives, awls and ingots. Although these Assemblages were specific to Ireland, Needham proposed that it was possible that a British Metalwork Assemblage 'I-II' existed similar to these hoard types (1996). Bronze defines Metalwork Assemblage III and is found in Britain during c. 2300 cal BC. This assemblage contains flat daggers and halberds but copper artefacts were not deposited with them. In addition lanulae, gold lozenges, were crafted in this period. Unfortunately the fluctuation in the radiocarbon calibration curve between c. 2130 – 1700 cal BC complicates absolute dating for Metalwork Assemblages III – V.

Metal artefacts from across Europe produced during the Chalcolithic and Early Bronze Age have been catalogued by the *Prähistoriche Bronzefunde*. These studies are divided

into various bronze artefact groups such as axes (Schmidt and Burgess, 1981), dirks (Burgess and Gerloff, 1981), spearheads (Davis, 2012), and daggers (Gerloff, 1975). Daggers have a strong association with burials between c. 2500 and 1500 BC. Gerloff divides daggers into two main categories: the first, daggers, and the second, knife-daggers. The first category includes the earliest copper-tanged daggers, flat-riveted blades, the Armorico-British daggers, Camerton-Snowshill daggers, and finally, the Arreton types. Knife-daggers are much less complex in their divisions but include a tanged and a flat-riveted variant (1975). According to Gerloff, these followed a typological progression but many dagger variants remained in circulation as new types emerged (1975). This sequence was loosely confirmed by the *Dating Cremated Bone* project (Sheridan, 2007). Copper-tanged daggers are focused in the south of Britain (there are outliers: an example from Whitby, but it is questionable in provenance (viz Gerloff (1975, p. 30)). The earliest metal daggers in northern Britain are flat-riveted daggers, which Sheridan dates to c. 2300 BC, followed by Armorico-British daggers that seem to emerge c. 1900 BC (Sheridan, 2007, p. 177-179).

There are other metalwork objects that appear in burial contexts; in particular, awls have been found as part of Yorkshire round barrow grave goods. Unfortunately, there is not as much detailed research on these objects as there could be.

2.4.3. Jet

Another material involved in Chalcolithic and Early Bronze Age grave goods is jet. Its source is off of the east Yorkshire coast and seams run deep beneath the North Yorkshire Moors. The most recent coverage of jet objects in Britain was by Sheridan and Davis (2002). They focused on those artefacts recovered in Scotland and identified a highpoint of usage during c. 2200-1800 BC. They categorised nine artefact types: V-perforated buttons and studs, spacer plate necklaces and bracelets, disc-bead necklaces, disc-and-fusiform bead necklaces, disc-and-fusiform bead belt, 'pulley' belt rings, plain belt or strap ring, 'napkin rings', and miscellaneous jet objects. Sheridan and Davis (2002) noted that jet objects were focused along the east coast of Britain from their source in Whitby towards Scotland. They argue that this was evidence of

elite exchange networks between the east coast of Yorkshire and Scotland from c. 3500 BC onwards (2002).

2.5. Chalcolithic and Early Bronze Age mortuary practice

The influence of Childe's 'Beaker folk' (1930) in archaeology meant that Beaker graves, featuring a single-grave burial featuring a crouched inhumation surrounded by grave goods including a Beaker pot, barbed-and-tanged arrowheads and wrist-guard (amongst other things), beneath a barrow mounds were considered the archaeological standard for the beginning of the Late Neolithic. The archaeological discussion regarding mortuary practice during the Chalcolithic and Early Bronze Age tends to blur into interpretive frameworks.

2.5.1. Inhumation

Ashbee claimed that barrows with single inhumation burials in graves were the most common treatment of human remains during the Early Bronze Age (1960, p. 41-43). He defines burials dividing them into a central primary grave with multiple secondary graves. This convention was based on the Wessex 'rich graves' on the assumption that the rest of Britain was similar to the southern data.

Yorkshire burial evidence overturned this assumption with two separate studies. Frederic Petersen's examination of the Yorkshire Wolds barrow data obtained from William Greenwell's *British Barrows* and the Mortimers' *Forty Years Researches*, covered 425 round barrows (1972, p. 25). Petersen concluded that more barrows featured multiple 'primary' burials, i.e. where no particular burial was situated beneath the mound's apex, including both inhumations and cremations at the original ground surface. Overall, including cremation deposits, graves featuring at least two individuals were the most common within the Wolds barrows. The majority of graves within round barrows included two inhumations placed within the same pit. This did not indicate burial at the same time – the additional interments were buried within the fill, or another burial significantly disturbed the original remains. This could mean that barrow mounds were built after two or more burials which undermines the theory that round barrows were built to commemorate a particular high status individuals. Only

140 barrows had primary burials as described by Ashbee which accounted for roughly 35% of the barrows on the Wolds (Petersen, 1972, p. 26).

Another study by Alexandra Tuckwell used the Yorkshire burial evidence but focused on the role of inhumation practice (1975). Examining 636 burials and assigning them with codes based on their position, age, sex and associated goods and other burials, Tuckwell revealed that East-West orientations were more common overall than North-South orientation but that the remains of the deceased most frequently faced south. Bodies were most likely to be placed on their right, followed by bodies placed on their back and then possibly on their left side (Tuckwell, 1975, p. 99). This contrasted with Thurnam's proposal that bodies interred in the Early Bronze Age were most likely to be buried on their left (1871, p. 321). There were trends with the placement of grave-goods within the barrow. Beakers tended to be placed near the head or the feet. Food Vessels were usually placed by the head (either behind or in front of), but most often placed in front of the deceased (Tuckwell, 1975, p. 109). In association with Beakers, males are placed on their left sides, head to the east, while female burials are placed on their right, with their head to the west, and both face south (Tuckwell, 1975, p. 113).

Both Tuckwell and Petersen inspired the work of Koji Mizoguchi and Gavin Lucas. Mizoguchi (1993) showed that multiple inhumation burials within round barrows reproduced the same pattern across various sites: the primary or initial burials were adult males (50%), these were followed by female (15%) or juvenile burials (29%) (1993, p. 225). The alignment of multiple burials within a single grave referenced one another. Mizoguchi (1993) hypothesised that knowledge of burials and rites was preserved by a select group whose tenuous power relations necessitated the encouragement of spectacle of cremation in the mortuary rites as a demonstration of their significance (1993).

2.5.2. Cremation

One aspect of burial practice neglected until recently is the role of cremation and their role in round barrows. This practice plays a strong part in mortuary practice during the Early Bronze Age. This was due to the inability to date cremated remains until recently.

This had a significant holdover regarding archaeological appreciation of mortuary practice between c. 2500 and 1500 BC.

Jacqueline McKinley (1994) observed that there was evidence of metalwork being incorporated into the cremation itself during the Early Bronze Age but in very few cases included in the pyre goods. This has fascinating ramifications for object biographies and could indicate severing an item's connection before being passed on. It informs the understanding of burial rites. McKinley noted that debris from the pyre was cleared away and redistributed in five typical areas: within grave fills, over filled graves, in other cut features, spread over the ground surface, or into a deliberate cut feature (1997, p. 137-139). Not all the remains from a cremation were collected and total collection was less significant than the practice of the rite. The exception to this was when the primary burial of a barrow was cremation. In that case the weight of a cremation deposit was much higher on average (1997, p. 141-143). Regrettably the majority of excavations carried out in Yorkshire were during the nineteenth century. Poor curation and recording of cremation burials from round barrows makes assessing this extremely difficult.

Downes employs a dualistic understanding of the rite of cremation as both a communal practice and as a rite of passage (1999). Emphasising the role of topography and the impact of the ritual as responsive to and changing the environment, Downes proposes that cremation rituals exist in a different framework to inhumation burials and are only appropriate for certain kinds of death (1999, p. 28). Based upon ethno-archaeological research, these rituals leave their mark in the landscape in the ground or in the memories of mourner (Downes, 2005). Owoc points out that the role of funerary and mortuary practice during the Early Bronze became increasingly appreciated in these terms (2007). Downes argues that ritual cremation in Early Bronze Age Orkney provided a sense of continuity to the community. The rapid transformation into another substance enabled a faster re-integration into society (2005). Other transformations occurred contemporary to these practices in the realms of domestic architecture and agriculture. The rite of cremation offered the community greater control over death and its social impact (Downes, 2005, p. 239-241). Offering an

explanation for the practice of cremation in the context of the Orcadian material, Downes provides a dynamic for social change that harks back to Mizoguchi's explanations for Yorkshire (1993).

Garwood (2007) plotted the change in practices relating to the dead as part of his round barrow chronology. During the period c. 2500 – 2150 BC, cremations were rare but inhumations were more common. The sequence of burial would be initiated by the single inhumation of an adult male at a grave in the centre of the barrow. This was followed by the additional burials within the central grave. After c. 2150 BC cremations become more common. Inhumations move away from the central grave of the barrow towards the periphery and multiple burials of a wider range of ages and gender occur throughout the structure. By c. 1850 cremation becomes the predominant treatment of burials in round barrows and inhumation declines.

Appleby (2013) addressed the processes in the treatments of human remains and argues against the disconnection that other scholars such as Mizoguchi (1993), Downes (2005), and Owoc (2007) propose between inhumation and cremation. Their *chaîne opératoires* had similar initial stages and there would be a greater connection between cremation and inhumation. The difference between these processes would not affect the role of the dead in monuments. Although cremation burials could not be reworked in the same manner that inhumation burials were after the initial interment. Appleby (2013) argues that the increasing role of cremation led to the gradual disengagement from round barrows as part of mortuary practice in favour of burials closer to settlements after c. 1500 BC. The approaches proposed by Appleby (2013) and Downes (2005) offer a number of different theories behind the transition from inhumation to cremation burial during the period c. 2500-1500 BC. They offer valuable alternatives for interpretation for examining the relationships between the living and the dead in Yorkshire during the Chalcolithic and the Early Bronze Age period.

2.6. Landscape studies of round barrows

The earliest studies of round barrow mounds note that these monuments occur in close proximity to each other and different prehistoric monuments. Stukeley (1740) identified the various elements of the Avebury and Stonehenge monument complexes.

He incorporated the round barrows into those schematics. In Yorkshire, John Mortimer proposed that the round barrows of the Huggate Wold were built to reflect Charles' Wain in the constellation of Ursa Major (1905, p. 298).

A more recent definition of a barrow cemetery was in *The Bronze Age Round Barrow in Britain*. Ashbee proposed three types: 'linear', 'nuclear', and 'dispersed' (1960, p. 34). These definitions rely extensively on Grinsell's 'founder's barrow': the first burial mound in a group (1936, p. 256) and the topographical relationship between the founding barrow and the surrounding sites. Linear barrow cemeteries extend in a line from the founding barrow and nuclear barrow cemeteries cluster around the founder's barrow. Dispersed barrow cemeteries do not match either of the other two but often have features of both and a definable relationship with each other (Ashbee, 1960, p. 35).

Fleming added two other categories, drawing from Wiltshire and Dorset: 'dispersed linear', and 'area' cemeteries (1971, p. 141-142). He highlighted the issues with these broad typologies and identified that many nuclear cemeteries contained linear elements. Many sites could not be strictly categorised within these types at all, although, there were discernible patterns (1971, p. 142-143).

Field (1998) approached round barrows in the landscape topographically in the south-east of England. These were aligned along small rivers situated on the Folkestone beds but faced south so that they could be observed on the lower-lying ground on the South Downs. Woodward (2000) followed Ashbee (1960) and Fleming's (1971) terminology to discuss the different groupings of these monuments in the landscape but stressed the importance of landscape as outlined by Field (1998). Based on three case studies, the Radley Barrow Hills in Oxfordshire, the Knowlton barrows in Dorset, and the Rudston round barrows in Yorkshire, Woodward proposes that the grouping of round barrows related to earlier Neolithic monuments and intervisibility in the landscape (2000).

Garwood created a chronology for the development of barrow landscapes building on the other conclusions detailed in this chapter (2007). It focuses on site sequences across the landscape and differentiates cemetery types from a chronological

perspective. Garwood addressed these issues in an earlier paper on different spatial relationships between round barrows where he proposed that descent through burials was represented by the development of linear cemeteries (1991).

Garwood's (2007) first period (c. 2500-2100 BC) places barrows closer to pre-existing Neolithic monuments but wide dispersion between burial mounds. There is some linearity with barrows but they remain some distance apart. From c. 2100 BC until 1800 BC is the increase in round barrow activity and the uptake in open-arena monuments. This coincides with the increased interest in creating ceremonial spaces in the landscape. Many mounds were associated with one another through expansion and the development of timber circles. This is the beginning of connecting round barrows through material and space. In c. 1800-1500 BC more intense concentration of burial mounds are situated along linear orientations rooted in the surrounding landscape or celestial alignments. Garwood (2007) argues this latter development was possible in the Wessex chalklands and the Radley Hills because of the dynastic continuity within the communities responsible for constructing the site.

Garwood (2012) addressed linearity in relation to early Beaker graves in the south of England which appeared to reject the past. Their alignments cut across early landscapes in a linear arrangement that contrasted with existing monument alignments. Referencing the past in round barrows occurred after c. 2150 BC but Beaker burials prior to that period were an attempt to inscribe a new set of ancestors into the landscape breaking from the established past. The earliest Beaker burials were placed further away from the landscape and along pathways to avoid conflict with existing traditions and represent the journey of Beaker-associated practices into the area.

2.7. Conclusion

There are a number of issues that have emerged from the discussion of research. This thesis addresses the roles of architecture, landscape, burial practices, and artefacts separately even though they relate closely. For analysis and discussion, it makes sense to unpack them and approach them separately.

Woodward makes a passing remark about round barrow monuments as collections of features that have been homogenised in archaeological approaches until recently (2000). Round barrow architecture is more modular than a mound accompanied by various features thrown up over a brief span of time. The mound is part of the monumentalisation occurring over a span of centuries. There are various features with relationships and meanings outside of round barrows. Ring-ditches and kerbs have architectural roles of support and structure and engage with the ritual and memorial components of round barrow construction. The role of landscape and placement of round barrows connects to topography, the area in which the sites were built, as well as the role of existing monuments and burials. The labels established by Fleming (1971) and Ashbee (1960) are useful descriptors for groups of round barrows but more recent research emphasises the primacy of landscape topography and visibility in the creation and placement of cemeteries (e.g. Field (1998)). Establishing taxonomies and terminologies is not without merit. The development of chronologies for pottery, metalwork, and architecture to identify the the development of round barrows and cemeteries. Understanding these sequences illuminates the changing practices of treatments of human remains between c. 2500-1500 BC and the gradual transition from favouring inhumation to cremation in Britain.

The majority of these approaches do not tackle Yorkshire specifically (although Woodward uses Rudston as a case-study (2000)). These models have emerged from data collected from southern Britain or Scotland. The data from Yorkshire are addressed in the following chapter but the majority of it was derived from the antiquarians during the 19th Century. The focus on southern Britain and the lack of models from one of the largest sources in the country is perturbing. There are approaches that have addressed other less well-considered regions of Britain (Fowler, 2013). There have been attempts to address the research questions in this thesis but few of them have taken the role of the Yorkshire round barrows into account.

The key chronologies described in this chapter and used throughout the thesis are summarised in Table 2.3 and Table 2.4 below:

Carinated Beakers	Low-Carinated (LC)	c. 2500-2100 BC
	Tall Mid-Carinated (TMC)	c. 2200-2000 BC
	Weak-Carinated (WC)	c. 2200-1900 BC
Necked Beakers	Short-Necked (SN)	c. 2250-1950 BC
	Long-Necked (early) (LN1)	c. 2200-2050 BC
	Long-Necked (late) (LN2)	c. 2100-1750 BC
S-Profile Beakers	Low-Bellied (LBSP)	c. 2250-2050 BC
	High-Bellied (HBSP)	c. 2200-2000 BC
	Globular (GSP)	c. 2050-1850 BC
	Slender Mid-Bellied (SMBSP)	c. 1950-1700 BC
Food Vessels	Vases (FVV)	c. 2100-1700 BC
	Bowls (FVB)	c. 2150-1900 BC
	Urns (FVU)	c. 2050-1700 BC
	Enlarged Urns (EFVU)	c. 2050-1700 BC
Collared Urns	(CU)	c. 1950-1500 BC
Accessory Cups	(AC)	c. 2000-1500 BC
Daggers	Flat-riveted daggers	c. 2200-1900 BC
	Knife-daggers	c. 1900-1600 BC

Table 2.3: Artefact chronology (Needham, 2005; Sheridan, 2007; Fowler, 2013)

	c. 2500-2150 BC	c. 2150-1850 BC	c. 1850-1500 BC
Mounds	• Small single-phase mounds. • Very little mound enlargement • Stake circles, small and rare. • Rare 'mortuary house' structures.	• Single-phase mound building. • Enlargement of existing mounds. • Stake circles quite common. • Concentric stake-circles added after mounds.	• Mostly single-phase mounds. • Stake circles increasingly rare. • Concentric stake circles built before single-phase mounds. • Elaborate external barrow forms
Open-arena monuments	• Less diversity in open-arena structures. • Rare burials in open-arena monuments. • Separated from mounds and burials.	• Increased diversity in open-arena structures. • Burials in open-arena monuments. • More crossover between mounds.	• Rare construction of new monuments. • Continued burial at existing sites.
Burials	• Single inhumations in graves in centre of barrows. • Some additional burials within main grave. • Primary burial most usually adult males. • Rare cremations.	• Single inhumations in graves at centre and periphery of barrows. • Multiple burials throughout the barrow structure. • Wider ranges of age and gender in burials. • Cremations more common.	• Single inhumations in graves extremely rare in barrows. • Multiple central burials much more rare. • Predominantly cremation burials.
Artefacts	• Beaker 'package' most common as grave goods. • Some Food Vessels at the end of this period.	• Collared Urns associated with increased cremations.	• Collared Urns, Cordoned Urns, and Food Vessels associated with cremations. • Large scale, complex artefact assemblages with graves.

Table 2.4: Barrow chronology (Garwood, 2007)

Chapter 3. Round barrows in Yorkshire: a methodology arising from a critical history of research

3.1. Introduction

Reports of barrow openings in Yorkshire date to the eighteenth century and landscapes such as the Yorkshire Wolds are influential in archaeological interpretations of British prehistory. This chapter is divided into two halves. The first reviews the literature on the research and excavation of round barrows in Yorkshire from the nineteenth century to the present. The second half discusses the methodology for the research and integrates the disparate approaches that have been applied to Yorkshire. There have been previous attempts to synthesise the evidence (Pierpoint, 1980; Manby et al., 2003), recent studies have interrogated the material from round barrows in Yorkshire (Whitaker, 2011; Walsh, 2013), catalogues of antiquarian material (Kinnes and Longworth, 1985), and corpuses of excavations in regions (Smith, 1994) but few attempts to examine round barrows throughout Yorkshire as monuments in their own right. There were remarkably few attempts to address the questions outlined in the introduction: how are round barrows formed, how do they affect and are affected by the changing relationships between the living and the dead, and what do they tell us about prehistoric engagement with the world?

Developing a methodology that addresses these questions and engages with previous research and excavation in Yorkshire and Britain is key to answering these questions. This thesis focuses on burial mounds as monuments but takes the role of mortuary practice into account. Answering the research questions requires an understanding of sequence in round barrow monuments on an individual level within smaller regions and across the entirety of Yorkshire. Examining the changes in material culture and developing an understanding to its role in round barrows illuminates the relationships between the living and the dead. The research framework developed as a result of this methodology had to recognise that these relationships are unique in different places. Certain parts of Yorkshire, such as the Wolds or the Moors, should not be used to characterise the whole county.

The result is the collation of vast amounts of information on round barrow monuments to be sorted and searched to draw out common trends. Establishing a data-collection framework to encompass the sequence, location, as well as the architecture, burial and landscape of round barrows provides a reasonable comparison to other research. Garwood (2007), for example, addressed those themes to provide a chronological context within southern Britain. The macro-scale of research in Yorkshire was only the first step. There had to be an examination of smaller scale areas in finer detail. An additional data-collection framework was created to provide a stronger level of detail and assess the level of diversity between round barrows and cemeteries in Yorkshire. Selecting these case-studies was dependent on a number of factors: intensity of previous research, amount of recent research carried out in the last ten years, and the definition of the landscape character.

Creating a methodology has to take previous research into account before it can marry the wider trends across Britain with excavated material from Yorkshire. The structure and background for this wider research was outlined in Chapter 2. Many of the choices made to carry out the research in this way were intended to honour the work from Yorkshire.

3.2. A history of round barrow study in Yorkshire

The two oldest recorded round barrow excavations in Yorkshire are the site at Dimmingdale, near Lockwood in the North Yorkshire Moors, which was excavated in 1770 (Smith, 1994), and Mortimer 295 on the Wolds, which had been previously excavated at some point in the eighteenth century (Mortimer, 1905). These excavations set the tone for modern research and excavation in Yorkshire particularly the focus on the rich archaeological landscapes of these two areas. In addition to archaeological investigation round barrows were used and adapted by the people that lived around them since these monuments were built. Burial mounds were opened to incorporate Roman rubbish, Anglo-Saxon burials, and in recent times; anti-aircraft platforms.

Most round barrow excavations were carried out in the nineteenth century by antiquarians. In *Social Patterns in Yorkshire Prehistory*, Pierpoint (1980) assessed the

Yorkshire antiquarians and identified nine key antiquarians that worked in Yorkshire. These were first identified by Frank Elgee in *Early Man in North-East Yorkshire* (1930). Their significant influence on the archaeological material relating to prehistoric Yorkshire means they are worth examining in detail. This is because the majority of the research proceeding them derives from their initial excavations. The two most significant figures in round barrow excavation are William Greenwell and John Robert Mortimer, but there were others such as James Silburn, Lord Londesborough, John Atkinson, Samuel Anderson, James Ruddock, Thomas Kendall, and Thomas Boynton. These last two have virtually no publications associated with their admittedly large collections of finds (Elgee, 1930; Pierpoint, 1980). Their artefacts have no provenance or context so they are not in the dataset. Regarding the other antiquarians, Atkinson, Anderson, and Ruddock's' excavations were focused in North Yorkshire. While Mortimer, Lord Londesborough, and James Silburn concentrated in the Wolds. Greenwell had a prolific archaeological career throughout Yorkshire and the rest of Britain.

These were not the earliest barrow diggers of the nineteenth century. Though they were not as prolific as some of the other antiquarians examined in this chapter, the contributions of early researchers who gathered stories where otherwise no evidence at all would exist are useful sources. Local scholars of the early nineteenth century incorporated investigations by local landowners and other interested parties into their histories to add a sense of the greater past as well as gothic colour. The majority of these accounts are second-hand and were gathered from local recollection, folklore, and recent history. The most prolific regional history source for round barrow investigations is the Whellan *et al*'s two volume *History and Topography of the City of York* (1859a). Most of the descriptions gathered by Whellan *et al* were brief summaries of an opening that noted finds but did not mention any other details unless they were particularly unusual. The oldest history is Eastmead's *Historia Rievallensis* that reported the excavation of the Starfits Round Barrow by a third-party. The book describes a number of round barrows on Ampleforth Moor that Eastmead excavated directly judging from the more detailed description (1824). This trend continued into the twentieth century. Round barrow diggings became incorporated into local lore and

accumulated into histories of particular parts of Yorkshire. Local historians such as Ord carried out their own excavations to supplement their writing (1846). While McCall included a barrow digging report as part of his history of the local landowners for the tenuous primordial link beloved of aristocratic antiquarians (1904).

The development of the early learned societies offered a forum for these accounts and the discussion of the prehistoric past. The Yorkshire Antiquarian Club produced brief notes in the proceedings of the Yorkshire Philosophical Society but their earliest investigations make for interesting reading (Proctor, 1855). Harrison (2010) notes that the members of the club believed that all round barrows were contemporary and represented the burials and territorial markers of the Brigantine tribe. By the standards of their contemporaries they were more careful and more scrupulous in recording. Mortimer (1905) described their excavation methods many years later, which as Harrison (2010) points out, were similar to the prevailing antiquarian practices: i.e. driving a shaft through the apex of the monument and pulling out any particularly interesting finds. The Antiquarian Club declined in membership as other antiquarians began to carry out more intensive excavations. They were eclipsed by the Huddersfield and District Archaeology Society which would become the Yorkshire Archaeological Society who expanded and produced their own journal in 1870.

A large proportion of the data on Yorkshire round barrows was collected from these early excavations but the quality of recording and methodology varies significantly. For instance, Samuel Anderson never published his work but he amassed a considerable collection of objects and notes from sites in the North Yorkshire Moors that were eventually obtained by Liverpool Museum. Fortunately the notes were of sufficient quality that Margaret Smith was able to attribute artefacts to specific sites in the 1990s (Smith, 1994, p. 4). John Atkinson published his barrow digging in a series of articles in the Gentlemen's Magazine between 1861 and 1865. These have provided us with detailed accounts of these excavations. Another significant antiquarian of the North Yorkshire Moors was James Ruddock, a taxidermist from Pickering, who collected artefacts from round barrows between 1840 and 1860. His accounts were compiled by Thomas Bateman in *Ten Years Diggings in Celtic and Saxon Grave Hills* (1861). Many of

Ruddock's descriptions regarding the siting of his barrows are vague as he trespassed to dig some of the sites to find objects to sell (Elgee, 1930). Many round barrows that Ruddock excavated can only be traced as four figure Ordnance Survey grid references (Smith, 1994). Many of his finds are part of the Bateman collection in the Sheffield Museum but their corresponding accounts are useless for siting the round barrow.

On the Wolds, both James Silburn and Lord Londesborough were excavating round barrows. Londesborough published sporadically and only when he recovered objects he deemed worthy of reporting (Greenwell, 1877). Silburn used excavation methods described by Colt-Hoare, marked his investigations with a lead plaque with the date of the opening, and dug simple prospecting pits through round barrows for artefacts and remains (Mortimer, 1905).

John Mortimer's (b. 1825, d. 1911) working class roots set him apart from a great deal of his contemporaries. Atkinson, Silburn, and Anderson were clerics and Londesborough was a hereditary peer. Mortimer excavated almost three-hundred round barrows and amassed a vast collection of artefacts from excavation and stray finds that required a purpose-built museum to house them. After his death, much of this collection found its way to the Hull and East Riding Museum under the stewardship of Thomas Sheppard. Mortimer's literary round barrow legacy is in his compendium of excavation: *Forty Years Researches in British and Saxon burial mounds of East Yorkshire* (1905), and a follow-up article: *Opening of two barrows in the East Riding* (1910). These works detail the opening of 298 round barrows across the chalklands of the Yorkshire Wolds. The quality of the description, mapping and illustrations make this work extremely valuable and pioneering in its intricacies even in the present.

In many details it surpasses its model: *British Barrows* (1877), Greenwell's pioneering work on his excavations, which was followed by a lengthy article in *Archaeologia* covering his later discoveries (1890). Coming from a wealthy background, William Greenwell (b. 1820, d. 1918) had the resources to establish a collection of objects and finance numerous excavations around Britain but focused on Yorkshire, County Durham, and Northumberland. His collection of artefacts was bequeathed to the

British Museum. Greenwell explored 297 barrows (both round and long) which were recorded in *British Barrows* (1877) and his paper in *Archaeologia*: *Recent researches* (1890). Of those, 216 sites were excavated within Yorkshire and he examined an additional 146 sites that were not recorded in either of these works (69 of which were located in Yorkshire). These were identified by Ian Kinnes and Ian Longworth during their cataloguing of Greenwell's collection in the British Museum and their identities established from either the work of other archaeologists, Greenwell's other publications, or his collated notes (1985). The catalogue incorporates the results of re-excavations of many of Greenwell's sites and is an invaluable guide to the collection and comprehensive in its scope. It sorts its material by site and includes precise archaeological illustrations for the surviving material. The information for 139 sites in the dataset that could be sited accurately were drawn from this source in conjunction with Greenwell's accounts (1877; 1890).

Prior to the Great War, archaeological practice in Yorkshire remained heavily influenced by the barrow diggers. After 1918, scholars such as Thomas Sheppard (b. 1876, d. 1945), curator for Hull and East Riding Museum, as well as Frank and Harriet Elgee, curator of the Dorman Memorial Museum, concentrated more on cataloguing and synthesising much of the previous century's finds and reports. Frank Elgee wrote: *Early Man in North-East Yorkshire* (1930), while Frank and Harriet together wrote *The Archaeology of Yorkshire* (1933). Both of these works are part of the culture-history school of archaeology especially *Early Man in North-East Yorkshire* with its descriptions of 'Beaker Man' and 'Food Vessel Man'. It was one of the best summaries of the material evidence and the archaeological record in north-east Yorkshire available at the time. *The Archaeology of Yorkshire* benefits from lively prose, passion for the subject, and an appreciation for the wider British Isles and mainland Europe that slipped away from later scholars.

Another significant contributor to archaeology in Yorkshire during the inter-war period was Arthur Raistrick who surveyed a number of Bronze Age monuments in the West Riding (1929), and excavated a number of cairns on Malham Moor (Raistrick and Holmes, 1962). Very little prehistoric excavation was carried out until the work carried

out on Loose Howe (a composite round barrow containing a coffin inhumation burial excavated in 1937 by the Elgees), the Ampleforth Moor barrows (a group of four earthen round barrows containing a combination of inhumation and cremation burials excavated between 1936-1938 by Willmot), and Osbourne Lodge barrow (the plough spread remains of a burial mound excavated by Watkin in 1938), all located on the North Yorkshire Moors (Smith, 1994, p. 66, 98-102). Other sites excavated in during the '30s include Green Howe, in North Deighton. This barrow was investigated as part of an ongoing project between 1938 and 1942; which revealed a series of Food Vessels inhumations and cremations (Wood, 1971). The outbreak of the Second World War meant that these sites took decades to be published.

There was little interest in field excavation in the post-War boom of the nineteen fifties. Reconstruction and building efforts meant that there were sporadic forays into round barrows such as Quernhow which was excavated during the expansion of the A1 in 1949 (Waterman, 1951). This site is examined in more detail in Chapter 6. Another result of the War was the extensive planting of timber carried out across 'empty' parts of Yorkshire as part of an effort to replenish those reserves destroyed during the Blitz. These plantations irreparably damaged a number of round barrow sites in the North Yorkshire Moors as well as elsewhere such as the Howardian Hills (Smith, 1994; Carter, 1995; Manby et al., 2003). Development did lead to the excavation of some round barrow sites such as Little Ouseburn (a site of a round barrow containing the soil shadow of a timber coffin and the remains of an individual with a dagger excavated in 1958) (Rahtz, 1989), or Barnby Howes (a pair of mounds, one natural and another earth mound both excavated in 1951) (Smith, 1994).

During the nineteen sixties, the Ministry of Public Works funded a number of rescue excavations under the auspices of a number of archaeologists such as Terrence Brewster, Dominic Powesland and Antony Pacitto. It saw the beginnings of wider projects such as the extensive excavations carried out at Garton and Wetwang Slacks that enabled archaeologists to examine the excavations of John Mortimer as well as investigate previously unrecorded round barrows (Brewster, 1981; Dent, 1983). On the North Yorkshire Moors, a barrow cemetery was examined at Heslerton by Powesland

(1986; Smith, 1994), and a programme of work was carried out by Brewster and Pacitto in North Yorkshire (Brewster et al., 1995). A number of Greenwell's sites were re-excavated along the Gypsey Race by Brewster and Finney (unpublished), along with another round barrow Willie Howe (Kinnes and Longworth, 1985; Gibson and Bayliss, 2010). These re-examinations showed that the initial excavations were flawed: sub-surface chalk mounds were not detected and flint finds went unnoticed (Kinnes and Longworth, 1985). Excavations carried out on barrows previously unexplored revealed very similar finds to those that the antiquarians examined. Albeit they were more detailed and had a greater appreciation for the potential of Bronze Age flat cemeteries such as Garton and Wetwang Slacks (Brewster, 1981; Dent, 1983).

Stephen Pierpoint's *Social Patterns in Yorkshire Prehistory* approached aspects of the Yorkshire evidence using the earliest statistical computer software to assess the variables associated with a number of artefact types: Beakers, Food Vessels, plano-convex knives, and bronzes (1980). The assertions that Pierpoint makes about the quality of artefact production, pottery and size, and their relationships with the burial evidence are interesting. The correlation between Beaker vessel size and the age and sex categories of their related burials. Despite Pierpoint's assertion otherwise, it could be argued that quantity is not a substitute for quality with archaeological data. Pierpoint's interpretations are grounded on the processual school of archaeology and Lewis Binford's approach to social change and technology (1971). It might be intellectually unfashionable but Pierpoint's research was novel and attempted to utilise the emerging statistical software packages to deal with large datasets. Pierpoint was more interested in the role of objects and burial evidence than the usage of monuments. His approach was novel and intriguing though intellectual trends moved away from the systemic methods.

From the mid nineteen-seventies onwards, field research moved away from the North Yorkshire Moors and the Wolds. Instead it focused on the prehistoric development of other significant landscapes such as the Dales (ongoing surveying carried out since 1985 in Wensleydale, Swaledale, and Teesdale by Tim Laurie) (2011), the Humber estuary (examined by Robert Van de Noort between 1992 and 2000) (2003), or the

parish of Heslerton (researched by Dominic Powesland from 1980) (2003). These projects were multi-period in scope and combined survey and selective excavation in parts. They explicitly examined these landscapes reacting against the bias toward mortuary sites that dominated and the public spending carried out during the nineteen sixties and seventies. Early Bronze Age round barrow sites were identified and recorded by these projects but they prioritised domestic and settlement structures for excavation. Development-led archaeology became an increasing factor in Yorkshire prehistoric research during the nineteen nineties. The expansion of the A1 between Allerton Park and Dishforth examined a number of prehistoric cairns (Tavener, 1996), The Caythorpe Gas Pipeline uncovered the remains of a likely round barrow (Abramson, 1996).

The results from many round barrow excavations from Yorkshire remain unpublished or remain secluded away from the academic mainstream. This applies particularly to research carried out during the nineteen sixties and seventies. Gradually the gap is being rectified with publications by the Yorkshire Archaeological Society such as *The Excavations of seven Bronze Age Barrows on the Moorlands of North-East Yorkshire* (Brewster & Finney 1995). Another example is Margaret Smith's corpus of barrow excavations: *Excavated Bronze Age Burial Mounds in North-East Yorkshire* (1994) that collated a range of antiquarian and unpublished material and placed it into current typological frameworks. This volume combines as much detail as possible from the barrow excavation with detailed illustrations where available and making it another invaluable source for this research. It is structurally similar to Kinnes and Longworth's' Greenwell catalogue (1985). A number of sites remain out of circulation in Yorkshire such as Willie Howe in the Upper Wolds Valley, which remains unpublished, or the excavation reports of Wetwang and Garton Slacks that are covered over a 300 page report and across a number of publications including small local archaeology journals that are extremely difficult to procure.

The most recent synthesis: *The Archaeology of Yorkshire* presented a history of the research into prehistory and a detailed regional overview across the key areas in Yorkshire (Manby *et al.* 2003). Despite its publication before much of the research

discussed in Chapter 2, the summary for the period c. 2500-1500 BC is broadly accurate but relies upon broader findings discounted by recent research. The chronology for the chapter is structured around Burgess' eras (1980) in combination with Needham's largely accurate, numbered periods (1996). Individual artefact chronologies are based on older schemes: Clarke's Beaker identification (1970) and Burgess' problematic Collared Urn typology (1986), which have been superseded. Another significant issue is that it addresses the role of the mortuary evidence across Yorkshire in detail but Manby *et al* are more concerned with settlement evidence than the role of round barrows and other monuments in Yorkshire (2003). They cover the extensive range of Neolithic and Early Bronze Age burial mounds but the impression is that they were placed wholesale in the landscape. The significance of these monuments is not addressed and their meaning and relationship to each other and existing sites is not developed further. Manby *et al* recognise this and argue: "available cropmark evidence, excavation data and assemblage analysis, combined with their environmental setting offers the best prospect of determining the development phasing of various barrow groups" (2003, p. 74). Manby *et al* did lead the call to make more research on prehistoric Yorkshire more accessible to a wider audience. Nonetheless more recent projects; such as the research at Melton (Fenton-Thomas, 2011), near the Humber, or the expansion of the A1 road between Darrington and Dishforth (Brown et al., 2007), were the result of commercial development.

Three recent doctoral theses have examined the relevant evidence from Yorkshire. Catherine Neal's *People and the environment: a geoarchaeological approach to the Yorkshire Wolds landscape* did not focus on round barrows but addressed the environmental aspects of the Yorkshire Wolds and the effect of human activity on the landscape from the prehistoric through to the medieval periods (2009). Both Kathleen Wozenilek Whitaker's *Changing Cultural Dynamics on the Yorkshire Wolds* (2011), and Samantha Walsh's *Identity as process: an archaeological and osteological study of Early Bronze Age burials in northern England* (2013) focused on mortuary practice and the skeletal evidence from Yorkshire round barrows from the Early Bronze Age.

Neal (2009) examines the landscape history of the Yorkshire Wolds and is not concerned with round barrows aside from the role that they have played in the overall history of excavation and research for that area to the detriment of geo-archaeology. The formation of the Wolds landscape is poorly understood. Neal (2009) recognises that the concept of archaeological visibility is a difficult to handle as frequently the environment of the present is used to interpret the Wolds of the prehistoric past. She observes that there is some consistent settlement activity from the Iron Age onwards and possibly previously (Neal 2009). Though her research is explicitly about settlement and landscape formation within the Wolds and focuses on the Iron Age onwards, it raises issues: the necessity of a tailored approach and the pre-dominance of mortuary archaeology in Yorkshire.

Whitaker approached the human skeletal material from the Yorkshire Wolds from a palaeopathological perspective to reconstruct lifestyles from Neolithic, Bronze Age, and Iron Age contexts (2011). There are issues with the accuracy of antiquarian interpretation of skeletal material. Whitaker engaged with the collected specimens directly employing osteological methods to analyse the data carrying out stature estimation and examining the remains for the presence of pathologies and trauma. While she reviews the literature surrounding these issues within the Wolds, Whitaker's examination focuses on the remains of two individuals from Rudston, one from Garton Slack dating to the Neolithic and fifty-six individuals from various sites across the Wolds dating to the Bronze Age. Overall Whitaker identified that populations from the Bronze Age Wolds exhibited comparatively more osteological stresses than those elsewhere in Britain. These stresses differed minimally between sexes and according to isotopic analysis, Bronze Age populations were more mobile than their Iron Age counterparts. Whitaker did not interpret those results any further as her focus was bio-archaeological (2011).

The most recent thesis was Walsh's *Identity as process: an archaeological and osteological study of Early Bronze Age burials in northern England* (2013). It addressed sites on the Yorkshire Wolds and others such as Green Howe as well as other parts of the north of England: Derbyshire, Cheshire, Cumbria, and Lancashire. Where Whitaker

dealt exclusively with the bio-archaeological approaches and reassessed the available evidence, Walsh employed osteological and interpretive approaches to address burials in round barrows as the focus of her thesis. She examines the role of sequence in a few key monuments, including Green Howe, as well as the regional differences between site formation in Cumbria, Lancashire and Yorkshire. Walsh (2013) is concerned with using osteological methods to reconstruct identity in social groups of the Early Bronze Age rather than addressing the concepts of monument building and precepts of round barrow architecture.

This section covered methods and findings of round barrow research specific to Yorkshire with an initial focus on the excavations carried out from 1800 to the present and the findings of three recent PhD theses. Those studies that addressed findings from round barrows focused on burial and artefacts more than the development and relationships of these monuments. This thesis focuses on the role that round barrows played in mediating the relationship between the living and the dead, prehistoric engagement with the physical world, and the timescale for the formation of these monuments. The role of sequence in these monuments remains poorly understood across Yorkshire as a whole. There were merits to the approaches covered: Pierpoint (1980) used statistical models for a wide-scale appreciation of the available data in Yorkshire and Walsh (2013) employed case-studies to highlight points of discussion. Having outlined the methods and approaches for Yorkshire round barrows, the next section addresses the development and the methodology of this thesis based on the research discussed above and Chapter 2.

3.3. Analysing round barrows in Yorkshire

Across two-hundred years from the antiquarians to recent academic theses, it is evident that previous research has not engaged with the construction and development of monuments until recently. This section marries the disparate elements of prehistory in Yorkshire and Britain to establish a framework to best examine the relationship that round barrows embodied between the living and the dead, the process of their formation, and how representative they are of the prehistoric understanding of the physical world.

To address these questions, the current Yorkshire sequence needs to be updated and meshed with recent chronologies of relevant evidence. Namely: Beakers (Needham, 2005), Food Vessels, Collared Urns, and Accessory Cups, as well as metalwork (Sheridan, 2007). The most recent method for examining the sequence and development of round barrow monuments is the framework established by Garwood for southern Britain (2007). This had a large influence on the development for this framework. In other wide-scale research for Yorkshire, the lack of resolution in the data reduced the overall visibility of trends or anomalies. There are a vast amount of round barrow records throughout the whole area and because of the large-scale analysis, it is important to examine a number of areas in detail to assess the validity of the approach. This is especially important as the majority of excavations have concentrated on the eastern half of Yorkshire: mainly on the North Yorkshire Moors and the Wolds. Using case studies breaks down the larger data into easier finer-grained areas for more intricate analysis and interpretation.

3.3.1. Establishing a basic data-collection framework

Fowler (2013) used a Microsoft Excel™ spreadsheet to collect data to study burials and their associations in Northumberland dating to c. 2500-1500 BC. This was available from the Archaeology Data Service and was the basis of the data collection framework for this thesis. To capture the data needed and deal with the multitude of factors involved with the round barrow construction, artefacts and burials, a relational database comprising different sheets for barrow monuments, burials, and artefacts was trialled using Microsoft Access™. This proved overly complex and too unwieldy to detect patterns in the data. Two Excel™ spreadsheets were generated instead. The first was the generic data-collection framework for round barrows in Yorkshire and the second was more detailed to collect information for the specific case-study areas: the Upper Wolds Valley, the Ure-Swale Interfluve, and the Howardian Hills.

The variables for these spreadsheets were inspired by round barrow monuments that Garwood analysed (2007). The first framework sheet had to collect information to assess the barrows on a wider scale: spatial information such as grid references, landscape height and topographic data, and local geology to establish a simple GIS. It

also had to cover the other aspects of the Garwood chronology (2007): architectural features, use of open-arena monuments, and changing burial practice. The list of variables are listed in Table 3.1.

Geographical and reference data	Legend
	Pastscape ID
	Eastings
	Northings
	Excavation record
	Reference
Architecture and structure	Mound Composition
	Ring barrow
	Ring-ditches
	Kerbs
	Post-holes
	Height
	Diameter
Mortuary practice	Graves
	Cist
	Coffin
	Inhumations
	Cremations
	Burning
Artefacts	Beakers
	Beaker burial
	Beaker type
	Food Vessel
	Food Vessel burial
	Food Vessel type
	Collared Urns
	Accessory Cups
	Other pottery
	Metalwork type
	Metalwork burial
	Bone artefacts
	Bone artefact burial
	Bone artefact type
	Jet artefacts
	Jet artefact burial
	Jet artefact type
	Other artefacts
	Flint

Table 3.1: Data collection fields for broad scale analysis

Garwood's chronology was an ideal framework to establish a data-collection framework for available round barrow records in Yorkshire. The various categories were broken down into their constituent components and formed the backbone of the data-collection frameworks.

The first two Garwood categories are the role of mounds and open-arena monuments in round barrows. From the accounts and the recording of the antiquarians it was simpler to condense these into architectural features (2007). Another approach taken by Ashbee was to catalogue the composition of burial mound into earth, stone, or composite types (1960), which were supposedly associated with certain architectural features. The role of barrow mound composition was never addressed by Garwood so the data-collection framework contained a field for the mound composition and fields for the various architectural features: kerbs (both external and internal), ring-ditches (both external and internal), as well as open-arena monument features such as stake or post-circles, and ring-cairns.

Chapter 2 discussed the competing frameworks examining the construction of round barrow mounds and contrasted the superficial nature of Ashbee's division into earth, cairn, and composite in contrast with the more nuanced nature of Garwood's architectural chronology. The reason for employing both of these frameworks was to accommodate the varying quality of the data collected from the round barrow material across Yorkshire (discussed in more detail in Section 3.3.2. below). In many of the accounts only the broadest information regarding the composition of the burial mound was recorded by the surveyor and often was assigned a category from Ashbee's scheme. To compensate for the lack of clarity across the broader data, the fine-detailed framework encompasses a better examination of the stratigraphy and construction materials of a burial mound as well as the architectural forms highlighted by Garwood. The fine-detail framework also integrates (where possible) the features within phases of mound construction as well as the prehistoric ground surface.

Mortuary practice is not the focus of the thesis but the role of burial and associated architecture is significant to understanding round barrow monuments. The data-collection framework needed to discriminate between inhumation and cremation

burials, the presence of graves and cists, as well as associated objects such as coffins. The changing and developing role of human remains during the Chalcolithic and Early Bronze Age is not as important to this thesis as it is to works such as *Identity as process* (Walsh, 2013), or *Cultural Dynamics on the Yorkshire Wolds* (Whitaker, 2011). It is important to utilise the broad categories of cremation and inhumation over time to examine the formation of mortuary architecture and its role in burial and those relationships between the living and the dead over the course of the Chalcolithic and Early Bronze Age. Considering the detailed discussions of the role of mortuary practice and the treatment of human remains in both this chapter and the previous one, the reduction of the diversity of the Chalcolithic and Early Bronze Age interactions with the dead is dictated by two factors. The first is that this thesis is not attempting to create a fine-scale analysis of burial practices found in Yorkshire's round barrow monuments and therefore there must be a compromise between brevity for analysis' sake. The second is again that the quality of data collected was extremely variable.

The role of artefacts as chronological markers has been discussed at length in Chapter 2. They provide a suitable context to mark out the sequences and development in the round barrows of Yorkshire. The data-collection recorded the presence of the key pottery types that date to between c. 2500-1500 BC: Beakers, Food Vessels, Collared Urns and Accessory Cups. These vessels had been recovered within mounds and often without a solid context. The antiquarians prioritised the role of these artefacts in burials the data-collection framework had to account for their presence alongside human remains. Adding the typological identification of pottery associated with these burials enabled a much tighter chronological context for some of these depositions especially for Beakers and Food Vessels. Other objects such as daggers have a range of solid dates associated with them necessitated the adding of metalwork types when bronze or copper artefacts were located with burials. The data-collection recorded the presence of jet, bone, worked stone or flint items within burials and the barrow mound.

The framework was generic enough to deal with Neolithic round barrow sites that might contained Chalcolithic or Early Bronze Age material. This was prescient

considering the number of round barrows that have awkward dating ranges due to the lack of diagnostic artefacts. The question of including sites such as Duggleby Howe, a Neolithic round barrow that contained an Early Bronze Age burial in its upper layers, arises but these were part of the round barrow landscape between c. 2500-1500 BC. Duggleby Howe is discussed in more detail in Chapter 5. The lack of solid associations for many sites meant that there needed to be some flexibility in the data-collection framework. The relationship between Chalcolithic and Early Bronze Age burial mounds and their Neolithic equivalents is important to examine but had not been addressed in much detail previously.

3.3.2. The extended data-collection framework

For the fine-grained analysis for the case-studies then a closer understanding of various factors was required. These included the barrow mound composition, stratigraphic sequence, burials, finds, features within a site and their overall placement within a burial mound. To do this, the existing factors from the wider dataset where expanded in more detail.

The large-scale dataset focused on the presence or absence of these factors. To the finer-resolution case-study dataset, numbers of objects, where they were found, types of burial was added. It treated the prehistoric ground surface and the burial mound itself as separate areas. This took into account the round barrow as a sequence of processes that formed over time and recognised the mounding as an element of this sequence that condensed and fixed the barrow ground surface. The fine-resolution framework recorded the presence of features within barrows that are not necessarily related to burial such as hearths, platforms, and small depositional pits that sometimes occur in these monuments.

This division between the ground surface and the burial mound in the case-study data-collection framework was a deliberately placed artificial point in the sequence. Many features blur this distinction such as platforms recovered from beneath the mound (i.e. Greenwell 2 (1877)). The building of the mound represented a significant change at the site. For the convenience of data-collection, the division between prehistoric ground surface and mound was based on the sequence of the site overall. For example, a

platform placed on the ground and then mounded over was part of the ground surface category. While a grave shaft cut into the mound which quarried through the old ground surface was noted in the mound section. Where there was confusion this would be recorded in a notes section added to both the ground surface and the mounds sections in the data-collection framework.

The first section covered the 'meta-data' about the round barrows in the data-set. The first of these: 'Legend' gave the barrow a label for use in the thesis text and maps. Note that in many cases, the standard practice in referring to Greenwell and Mortimer's' sites is to identify them with the name of the parish and number them based upon the order which they were excavated in the corresponding antiquarian's career. Mortimer re-excavated many barrows previously dug by Greenwell and incorporated them into *Forty Years' Researches* (1905). In those cases where a site has been re-examined, for example, Greenwell 3 (Mortimer 291), either a common name was applied or the label gave precedence to whoever excavated the site first. This makes it easier to locate the report in the primary source material and other supplementary material such as Kinnes and Longworth's Greenwell Catalogue (1985). The other variables covered reference and geographical data; eastings and northings to locate the site on the Ordnance Survey grid (and within GIS software), whether there is a record of the site being excavated and a reference for that record.

Beginning with architectural features, there are a number of key features in round barrows in the basic wide-ranging data-collection framework that covered the presence of ring-ditches, kerbs, and post-holes; as well as the morphology and composition of the burial mound. With the wider ranging data-set, the distinction between earth, stone, and composite mounds was drawn from Ashbee (1960). In the extended mound framework, space was allocated to detail both the materials and the stratigraphy of the site. The overall barrow height and diameter were recorded to compare the data with Garwood's conclusions about size and how smaller barrows tend towards the later end of the Early Bronze Age and as included in the broader data-collection framework (Garwood, 2007). The extended data-set added additional variables to take into account the various features within round barrows not directly

connected to mortuary practice: platforms, hearths, and pits, for example. These were also divided into features that are cut into the mound or ground surface and those that build over them as shown in Table 3.2.

	Ground surface	Mound
Architecture and structure		Mound materials and stratigraphy
	On-surface features	Sub-surface features
	Cut features	Cut features
	Ring-ditches	
	Kerbs	
	Post-holes	
Mortuary practice	Graves	Graves
	Cist	Cist
	Coffin	Coffin
	Inhumations	Inhumations
	Cremations	Cremations
	Burning	Burning
Artefacts	Beakers	Beakers
	Beaker burial	Beaker burial
	Beaker type	Beaker type
	Food Vessel	Food Vessel
	Food Vessel burial	Food Vessel burial
	Food Vessel type	Food Vessel type
	Collared Urns	Collared Urns
	Accessory Cups	Accessory Cups
	Other pottery	Other pottery
	Metalwork type	Metalwork type
	Metalwork burial	Metalwork burial
	Bone artefacts	Bone artefacts
	Bone artefact burial	Bone artefact burial
	Bone artefact type	Bone artefact type
	Jet artefacts	Jet artefacts
	Jet artefact burial	Jet artefact burial
	Jet artefact type	Jet artefact type
	Other artefacts	Other artefacts
	Flint	Flint

Table 3.2: Extended data-collection framework

Regarding architectural features directly related to mortuary practice, the basic data-collection framework recorded the presence of graves and cists, as well as burning within or beneath the mound. This was incorporated to assess correlation with other factors such as inhumation and cremation burial within the barrow, the mound's composition and the presence of other architectural features. With the extended data-

set, these variables were extended and quantified and divided between the ground surface and mound according to the criteria discussed above.

The variables for artefacts in round barrows had similar distinctions between the basic and extended data-sets. The fine-resolution framework recorded the presence, number, location and type of Beakers, Food Vessels, and metalwork in relation to burials. Additionally bone and jet objects that occur in round barrows were also recorded. As discussed in the previous chapter, the current typologies are Needham's Beaker scheme (2005), and Sheridan's dates for Food Vessels and metal daggers (2004; 2007). Due to the wide date-range of Accessory Cups (c. 2000-1500 BC), this thesis avoids Gibson's typology as it lacks the definition of the other typologies (2004b). There is no typology with a reliable chronology to differentiate Collared Urns and the date range for them in Sheridan (2007) is quite similar to Accessory Cups (c. 1950-1500 BC). There are three strong dating references for artefact types that occur within round barrows and additional, less well-defined supplementary chronologies should they become necessary.

3.3.3. Data collection, case study and source selection

This section outlines data collection itself, the reasoning behind case-study selection and use of sources to gather information regarding the round barrows of Yorkshire. The main resource for this thesis was the English Heritage Pastscape database further supplemented by bibliographic research. Mapping data from the Ordnance Survey and Digimap were used to create the geological, topographical, and boundary maps of Yorkshire using a combination of different mapping products for the analyses in the subsequent chapters.

Pastscape contains a large amount of information on a wide variety of sites and monuments of varying types from a number of periods. It references survey and excavation data collected from the various local Sites and Monuments Records from the authorities around Yorkshire. The number of records that are recovered by searching for 'Round Barrow' during the Prehistoric period, which Pastscape categorises up to 43 AD, in authorities recorded as part of the historic county of Yorkshire, are recorded in below.

Local authority	Number of records for 'round barrow'
Barnsley	1
Bradford	12
Calderdale	5
Darlington	1
Doncaster	3
East Riding of Yorkshire	422
Hartlepool	1
Leeds	4
Middlesborough	1
North Yorkshire	1363
Redcar and Cleveland	80
Rotherham	4
Sheffield	7
Stockton-on-Tees	1
Wakefield	4
York	15
Total	1924

Table 3.3: Pastscape records for the search terms: 'round barrow' and 'prehistoric' within local authorities in the historic county of Yorkshire

These are undifferentiated records, which includes unexcavated barrows, ring-ditches identified by survey, and those individual records that cover barrow cemeteries of multiple mounds. Factoring in those duplications, there are 2526 individual burial mounds that could be dated to the Early Bronze Age in Yorkshire. This includes surveyed mounds, ring-ditches, and sites with four-figure OS grid references. The latter are the most damaging because placing them accurately in relation to other sites would have been impossible given their accuracy was within 1km^2. Removing those 88 records leaves 2438 sites, of which, 676 barrows have been excavated. This is a large quantity of data and some of it is irrelevant.

After gathering the data from Pastscape, the next stage was to add information from the associated publications referenced in the database. There are 2526 round barrows in the dataset so this was only done for the excavated round barrows. For the case study areas, sites were added were not on Pastscape but had references and high-quality grid references (of six figures or more).

Selecting the case study areas derived from a combination of factors including the number of excavated round barrow sites within an area, the existing contemporary archaeology in the region, geographical definition, and the volume of literature that covered the area. The three case study areas selected were the Ure-Swale interfluve, the Upper Wolds Valley following the course of the Gypsey Race, and the Howardian Hills.

Both the Upper Wolds Valley and the Ure-Swale interfluve had been the subjects of recent archaeological landscape studies. Gibson and Bayliss (2010) re-examined the literature and surveyed the sites of Neolithic round barrows along the Gypsey Race within their own context. The area had a combination of sites excavated by antiquarians such as Greenwell and Mortimer in the 19th Century and re-excavations by Brewster, Manby, and Pacitto during the 1960s. This was similar to the Ure-Swale interfluve where Lukis carried out a series of excavations during the mid-19th Century and detailed investigations were carried out by Waterman on Quernhow in 20th Century. The Ure-Swale was recently the subject of investigations of its Quaternary landscape history (Bridgland et al, 2011) and the role of its Neolithic monuments during that period (Harding, 2013). Recent works covering both of these areas provide a strong background literature to examine the role of the round barrows in these landscapes. The long-standing interest in these areas and the collection of published excavations through the 19th, 20th and into the 21st Century also provide a range of quality data to draw from within this study. These case-studies stand in contrast with the Howardian Hills which had a number of published excavations carried out by Greenwell in the 19th Century and one by Stead. There was a limited amount of related literature relating to the Howardian Hills aside from the overview of the historic landscape carried out by English Heritage (Carter, 1995). This contrast

provided the opportunity to examine the strength of the approach with an adequate sample of excavated sites but with less significant weight of literature.

There were other potential case study areas that were considered. Those regions outside of the areas of North Yorkshire and the East Riding were discounted because the sample sizes would have been inadequate (see Table 3.2). Even landscapes within those areas had sparse examples of excavated sites and consequently these were discounted such as the Vale of Pickering or Holderness. Areas within the North Yorkshire Moors were considered however the collation and analysis of round barrow monuments had already been excellently covered by Smith (1994). Other case-studies that were considered included an additional area within the Yorkshire Wolds. One of the aims of this research was to examine the role of barrows within the Yorkshire landscape overall and to address the issue of the Wolds being the major focus for studies of the Neolithic and Early Bronze Age periods in that region. By drawing on more than one landscape study from the Wolds, the importance of other parts of Yorkshire to understanding round barrows would be diminished and undermine one of the important elements of representation of the material in this thesis.

The role of radiocarbon dating should be more significant to this thesis. There are 82 absolute dates collected from round barrow contexts in Yorkshire. These include Neolithic and Early Bronze Age round barrows but account for 26 round barrow sites in the dataset. They are found in Appendix 5 (an attached spreadsheet or available online via the Archaeological Data Service). These were collected and calibrated using OxCal and the IntCal 13 curve. The majority of these dates were collected by Gibson and Bayliss (2009, 2011). These develop Neolithic sequences for round barrows in the Upper Wolds valley and there are few reliable Early Bronze Age dates from their research. Other dates were collected before the reassessment of radiocarbon sampling in the 1990s. Many require Bayesian modelling before they would present an accurate assessment of date range as the majority of samples have a lower than 95% probability of accuracy. Though radiocarbon dating is a significant aspect of current archaeology, the material from Yorkshire is questionable in quality. There are exceptions: Gibson

and Bayliss' dates from the Upper Wold Valley (2009, 2011), Walsh's dates from Green Howe (2013), and Dickson and Hopkinson's dates from Nosterfield (2011).

3.4. Conclusion

There have been a number of approaches to the round barrows of Yorkshire. The majority of these were influenced by the vast amount of excavation and collection carried out in the 19th Century. More recent work has been fruitful in gathering data using more developed excavation techniques but much of it is still in the process of being published or difficult to access. Commercial archaeology and the Archaeological Data Service are assisting this process. Academic approaches have also tackled this material in a variety of ways: by focusing on the burial and osteological evidence such as Whitaker (2011) and Walsh (2013), or the role of artefacts (Pierpoint, 1980). Very few approaches specific to Yorkshire have attempted to address the development of round barrow monuments between c. 2500-1500 BC, how they mediated relationships between the living, the dead, and the world of the Chalcolithic and Early Bronze Age.

The variable quality of excavations is a result of the antiquarian records that comprise the bulk of the data. Two layers of data-collection are necessary to filter the information successfully as well as to analyse specific landscapes. These regions provide an opportunity to examine the roles of round barrows in geographically close-knit landscapes as opposed to the wider region of Yorkshire. These case studies were selected according to various factors: previous research, sample size, and topographic distinction. Over the following chapters, the frameworks were applied to the available data collected from the three key case-study regions in detail: The Gypsey Race, The Ure-Swale Interfluve, and The Howardian Hills.

Chapter 4. Analysis at the large scale: broad trends in Yorkshire round barrows

4.1. Introduction

The previous chapter addressed the historiography of prehistoric archaeology in Yorkshire and outlined an approach to analyse round barrows. This chapter puts those elements into practice with the collected data. There were a number of common variables identified from previous work and current research frameworks surrounding barrows during the Chalcolithic and Early Bronze Age: size, composition and associated architectural features, variations on burial practices, and artefacts with strong typo-chronologies. These categories form the basis of a data-collection framework incorporated into the GIS. Data was gathered from the English Heritage Pastscape database and supplemented by bibliographic research to collate as many sites as possible. Each record is a single burial mound and the entire dataset contains nearly 2500 round barrows including upstanding mounds, recorded locations of destroyed sites, as well as crop marks tentatively identified as round barrows. There are only 700 round barrows with associated published reports of excavation.

This data is found in the associated spreadsheets. These are based on the features of the data-collection framework described in Chapter 3. The maps were obtained from the Ordnance Survey, Natural England and the British Geological Survey. They were edited to remove recent historical features such as canals or other artificial watercourses. Layers featuring modern settlement data and route ways were disabled. Woodward (2000) argues that the topography of Britain has largely remained unchanged since prehistoric times but there were developments over the past four and a half thousand years. An important consideration is the impact of these changes on the destruction of round barrows. In lower lying regions such as the Vale of York, rich, fertile soils provide prime agricultural land. These landscapes have been subjected to arable and pastoral exploitation since the earliest times. Intensive use began with the Enclosures Act and the development of modern agricultural methods. Mechanical ploughing destroys prehistoric sites such as round barrows. This is a recurring theme in Mortimer's *Forty Years Researches* (1905) that focused on the

chalklands of the Yorkshire Wolds and the alluvial Vale of Pickering. These were prime arable lands and many sites he recorded were severely damaged by ploughing. Burial cairns were frequently dismantled where they occurred in arable croplands. In some cases they were repurposed into dry-stone walls or shelters by locals. The 2013 *Heritage at Risk Priority Sites* register marked the barrows at Birdsall and Wharram Percy as at risk of being destroyed by arable cultivation and a management plan was under discussion with the owner of the land regarding preservation (Heritage at Risk Priority Sites, 2013). 323 barrow sites remain Scheduled Monuments at Risk in Yorkshire at the time of writing. Arable farming remains the most significant threat to these sites but other industries contribute to the destruction of round barrows in Yorkshire. Gravel extraction has caused a number of issues in the Ure-Swale interfluve. Timber plantations led to the destruction of round barrows on the North Yorkshire Moors. Environmental factors such as coastal erosion or flooding have affected the barrows of the east coast and the lower lying regions respectively.

Any dataset compiled in the present would remain incomplete and unrepresentative of the totality of round barrows constructed and used c. 2500-1500 BC. A significant number of records of destroyed sites do exist as the processes discussed above impacted upon barrows in the data-set. The dimensions of barrows are often a record of the mutilation of a burial mound as a result of erosion or damage. Acknowledging that the data is not perfect, there are destroyed sites and ring-ditches identified in the data-set but 1288 sites have a recorded associated mound. Aerial photography has identified round barrows either reported as destroyed or previously unidentified new sites. The dataset contains a sample of 2437 round barrows to make reliable inferences.

In addition to distribution mapping, this analysis employs statistical probabilities to examine relationships in the data. This chapter summarises the results and addresses the role of larger-scale analysis in approaching the material.

4.2. General distribution patterns

The complete round barrow data-set including excavated, unexcavated, and crop-mark sites is been plotted over a topographic map of Yorkshire. This topographic map is

comprised of several layers: one is the elevation in metres above sea level - the darker areas are higher and the other marks the major rivers in the region.

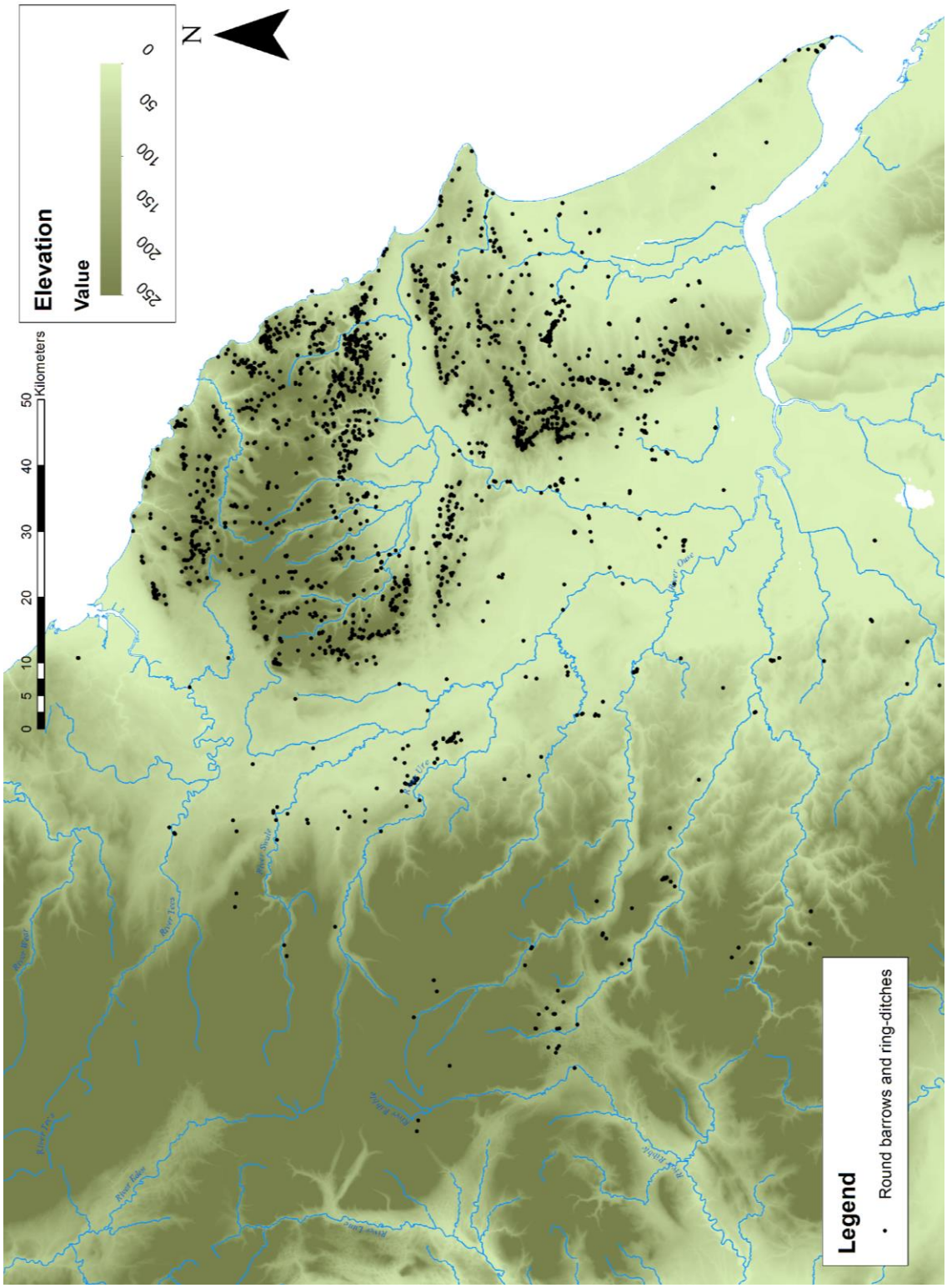

Figure 4.1: Round barrows and ring-ditch distribution in Yorkshire

The majority of sites across Yorkshire are focused in the east in distinct locales. In Teeside, there is a large concentration of barrows north of the rivers Esk and Lever and to the south in the North Yorkshire Moors. These groups congregate around Robin Hoods Bay on the east coast but are evenly distributed near the watercourses westwards to the Hambleton Hills. Many of these sites are situated on the hills overlooking the Vale of Pickering to the south and the Howardian Hills which bridge the Moors and the Wolds.

On the Wolds, the majority of sites overlook the northerly Vale of Pickering. There are round barrows aligned along Flamborough Head to the east and along the Wolds as it curves south towards the Humber estuary. Holderness has fewer sites that are situated on the plains around the Kelk Beck and Watton Becks that feed into the River Hull. The southeastern tip of Holderness features sites that overlook the North Sea and the Humber estuary.

The lower lying inland Vales of York and Mowbray have fewer barrows than the North Yorkshire Moors and the Wolds. They remain a significant presence up to the Tees west of the Skerne. These sites cling to the foothills of the Pennines congregating around the rivers Ure and Swale, as well as the Don, the Nidd and the Ouse. The southerly Pennine dales such as Airedale, Calderdale, and Wharfedale have significant presences of round barrows along the valleys of these rivers as well as the Ribble. There is a significantly lower concentration of these sites to the west than there are to the east.

Watercourses, elevation, and the variation of gradients in the local topography are significant factors in the placement and construction of round barrows. In Holderness, the lower lying area south-east of the Yorkshire Wolds, round barrows are located at points where they can be observed on the Humber estuary and North Sea coast. In the Wolds themselves, barrows do not concentrate on the highest ground but those areas surrounded by steeper inclines. This pattern occurs on the Hambleton and Howardian Hills where there are fewer barrows on the higher elevations. They are found more frequently on promontory positions in the landscape. Sites are situated on the lower elevations of the hills that overlook lower lying areas. In the North Yorkshire Moors

there are clusters overlooking the Vale of Pickering, the Whitby coast, Robin Hoods Bay, and Gisborough Moor. It is clear that many barrows were located where they could see and be seen in the landscape and often overlooked water such as rivers or the North Sea.

There are fewer areas of concentration for sites to the west. These clusters of barrows are in the Pennine Hills between the Ure and Swale rivers, along the River Nidd and at the source of the River Aire. They overlook watercourses in lower lying areas where large faster-flowing rivers fork such as the Ure-Swale washlands and the Nidd-Wharfe confluence. In the Humber Basin and the Vale of York, there are few barrows situated on higher ground but more on the lower lying areas of the Vales. In those cases, the placement of round barrows is not solely a matter of vantage but these are within close proximity to nearby rivers and watercourses.

4.3. Mound construction and architectural motifs

The dataset records the construction of barrow mounds into three generic categories: earthen, cairn, and composite mounds. This is a simplification of the available data to encompass surveyed and excavated barrows. Ashbee's (1960) influence on recording round barrows means these categories are frequently all that is available for the composition of many burial mounds. These have been recoded into a single nominal variable in the dataset for statistical analysis. Before using GIS to analyse the distribution of various mound types, basic statistics assists differentiating these categories and identify the correlations of earthen, composite, or cairn barrows.

4.3.1. Diameter and composition of burial mounds

Earthen mounds are mostly comprised of turves, clay, or similar more plastic materials, while cairns are those mounds constructed of stones. Composite mounds are built of a combination of those materials either in definite layers or less orderly. There are examples of composite earthen mounds were two different soils are present. Given the variable quality of recording, this cannot be examined in the wider data-set but where possible it is addressed in the following chapters. There is very little recording of the different materials employed in the construction of burial cairns. Anecdotal

evidence in other regions suggests that a variety of rocks are consciously selected for these monuments.

Table 4.1 shows those mounds with recorded diameters divided into the various categories discussed above and the results of descriptive statistical analyses applied to them: mean, median, mode, and range.

	Count	Percentage of total	Mean	Median	Mode	Range
No mound/ring-ditch	862	35.37	18.69	18.00	20.00	56.50
Earth	766	31.43	18.78	18.00	20.00	57.30
Cairn	162	6.65	11.20	10.00	6.00	30.50
Composite	647	26.55	16.16	15.00	20.00	57.00
Total	2437	100	17.22	16.00	20.00	58.46

Table 4.1: Frequencies, averages, and ranges for diameters of round barrows (in metres)

From an overall sample size of 2437 round barrows with recorded diameters, there are 1575 round barrows with extant burial mounds and recorded diameters. Earth dominates the population representing 49% of the standing barrow mounds being constructed of soil, turves, or similar materials. Accounting for composite sites (41%), earth is part of 90% of barrow mounds in Yorkshire. Cairns are the least populous type representing 10% of all the round barrows in the dataset with recorded mounds.

The diameters of cairns: the mean (11.20 m), median (10 m), mode (6m), and range (30.5), are lower than those of earth and composite burial mounds. They are smaller overall but more uniform in size in comparison to earth and composite round barrows. Earthen burial mounds have the largest mean (18.78 m), median (18 m), and modal (20 m) diameter values and the greatest range in size (57.30).

The numbers for no mound, earthen mound, and composite are all larger than cairns. This is a result of the dominance of these categories. Apart from cairns there is no strong link between materials composing round barrows and their size.

4.3.2. Distribution of burial mound compositions

The various distributions of burial mounds are detailed in Figure 4.2 to Figure 4.4. Burial mound compositions are diverse in the North Yorkshire Moors with earth, cairn, and composite barrows north of the Esk. The majority of round barrows are cairns but there are also significant numbers of earthen and composite sites along the Scarborough coast and the Hambleton Hills overlooking the Vales of Mowbray and Pickering. In the more northerly Cleveland Hills, there is a significant number of cairns and composite round barrows.

Further south in the Howardian Hills, there are primarily composite and earthen round barrows. This is the case in the Yorkshire Wolds and Holderness stretching from Flamborough Head and south to the Humber estuary. The lowland Vales of Mowbray and York contain a majority of earthen and composite burial mounds. In the Pennines, there is a significant increase in the number of cairns near to the sources of the Aire and the Ribble, further north in the Swale uplands, to the south-east near to the foothills in Nidderdale and a solitary example between the Don and the Tourne. Earth and composite round barrows are scattered throughout the Pennine hills with more composite burial mounds in the west of Yorkshire. There is a correlation between barrow mound material and its location in the landscape. The Wolds has the largest concentration of earth mounds. There is a relationship with composite mounds. Clusters of both barrow types are found in close proximity in the north of the Vale of Pickering, near Robin Hoods Bay on the Whitby coast, north of the River Esk, the western edges of the Hambleton and Howardian Hills, and the north-western escarpment of the Wolds. In the Vale of Mowbray and the Ure-Swale interfluve, there is an alignment of barrows along a north-south axis. Further south and west these sites become fewer with only six composite mounds in the Dales and Pennines. In contrast to earthen barrow mounds, round cairns are concentrated in the North Yorkshire Moors. A dense cluster is found north of the River Leven overlooking the Tees Valley. There are alignments following the course of valleys within the hills. There are cairns in the Pennine Hills and the Yorkshire Dales, one in the Vale of Mowbray, the Humber Basin, and four in the Wolds.

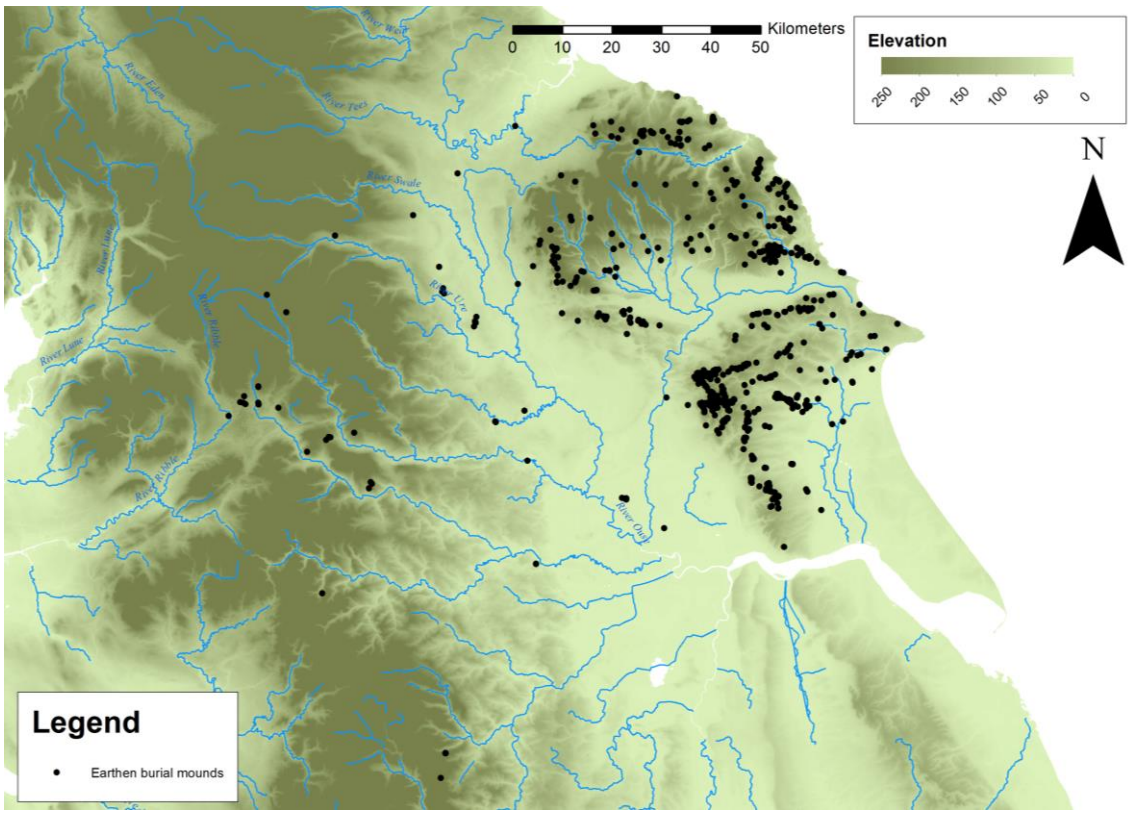

Figure 4.2: Distribution of earth mounds

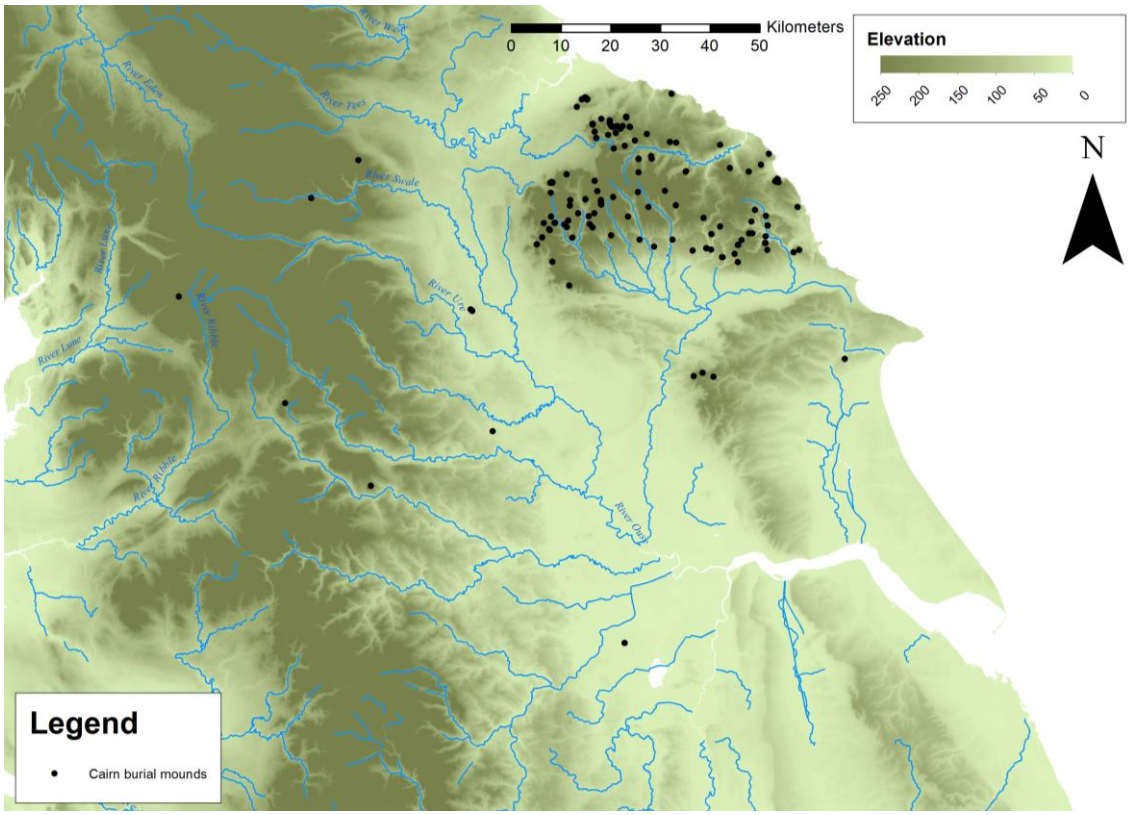

Figure 4.3: Distribution of cairn mounds

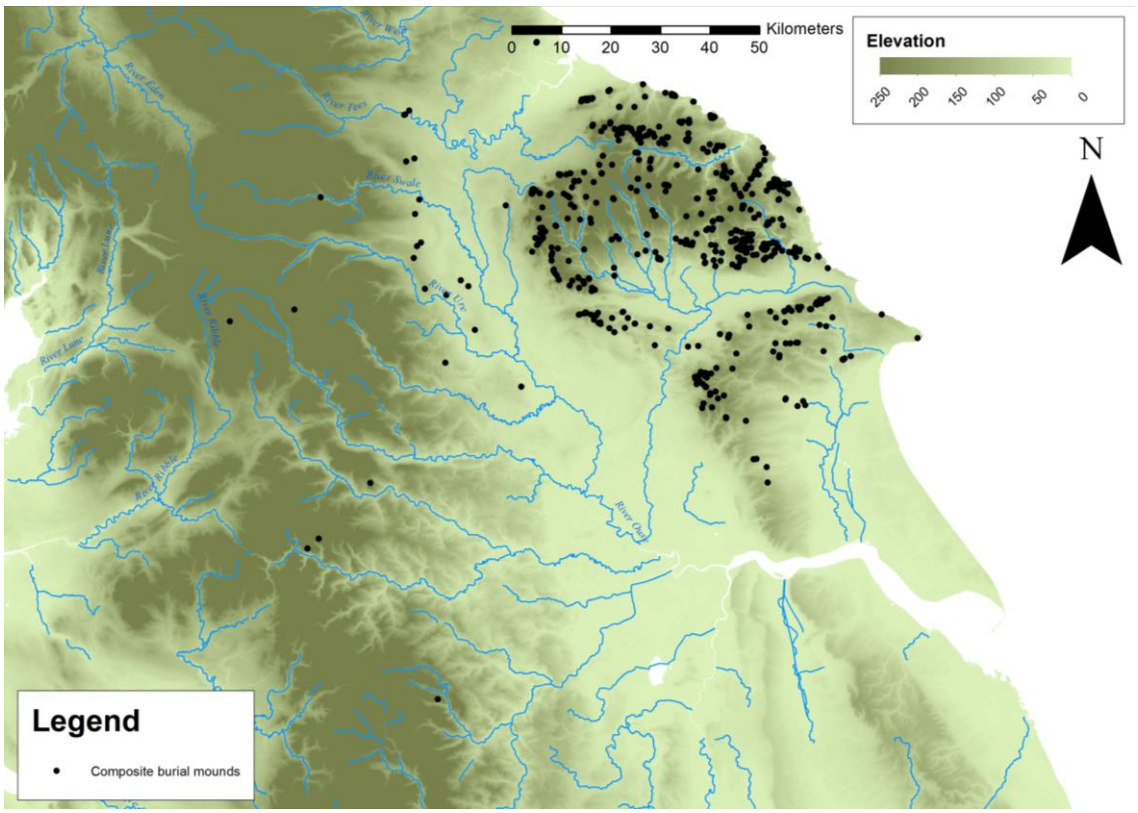

Figure 4.4: Distribution of composite mounds

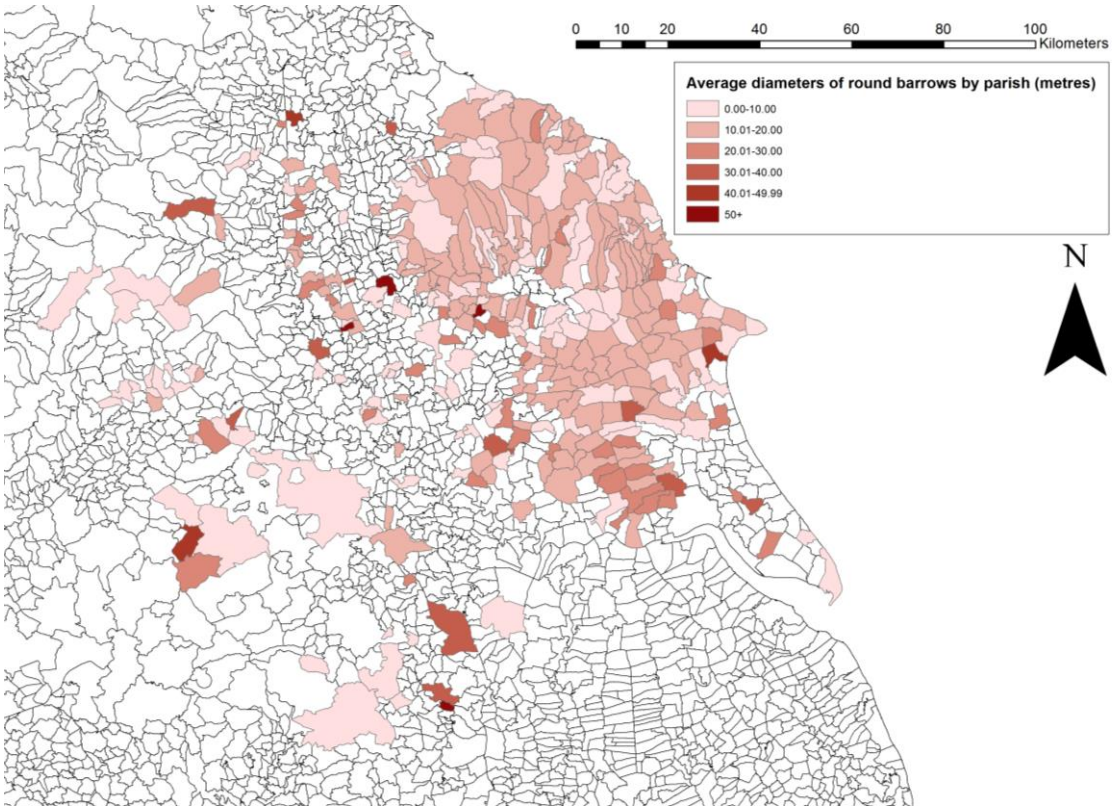

Figure 4.5: Average diameters of round barrows by parish

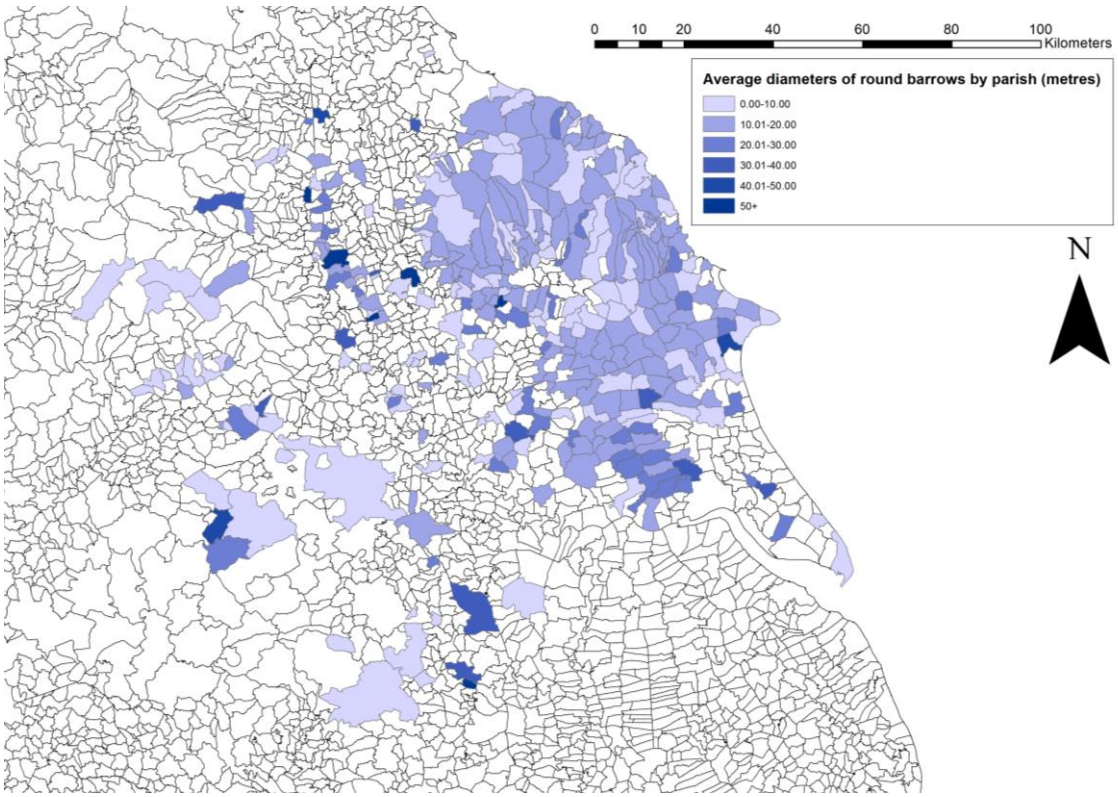

Figure 4.6: Average diameter of earthen round barrows by parish

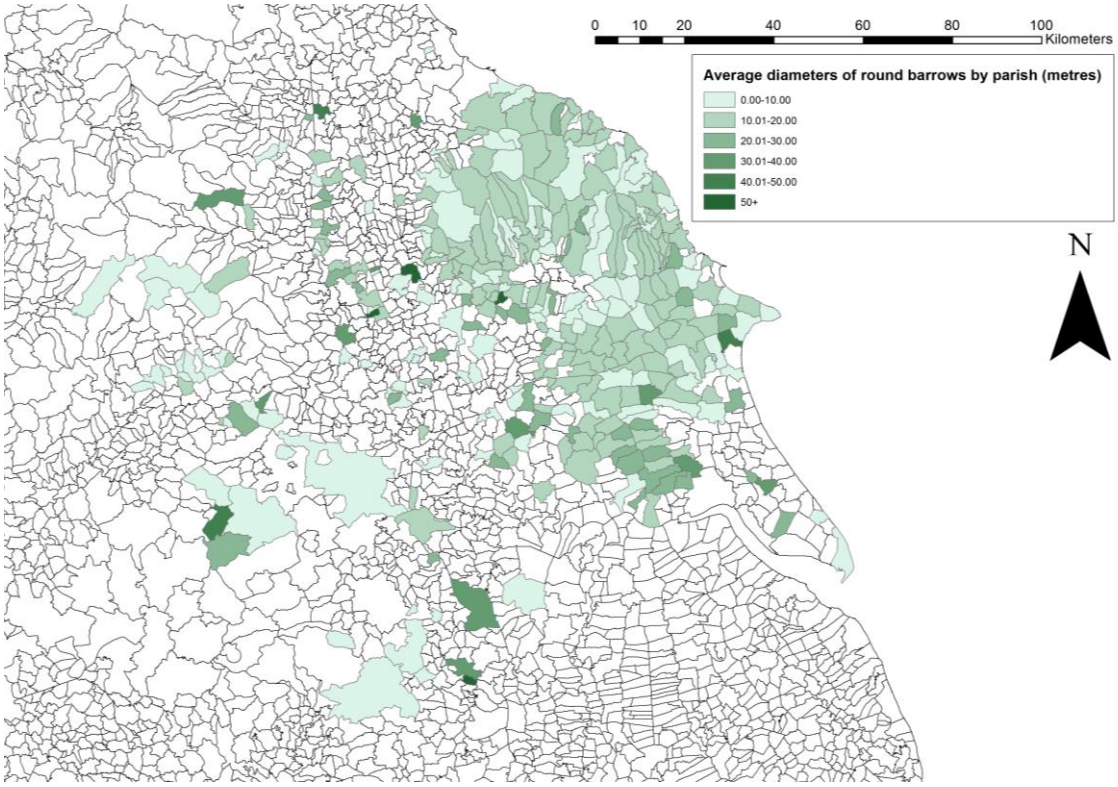

Figure 4.7: Average diameter of cairns by parish

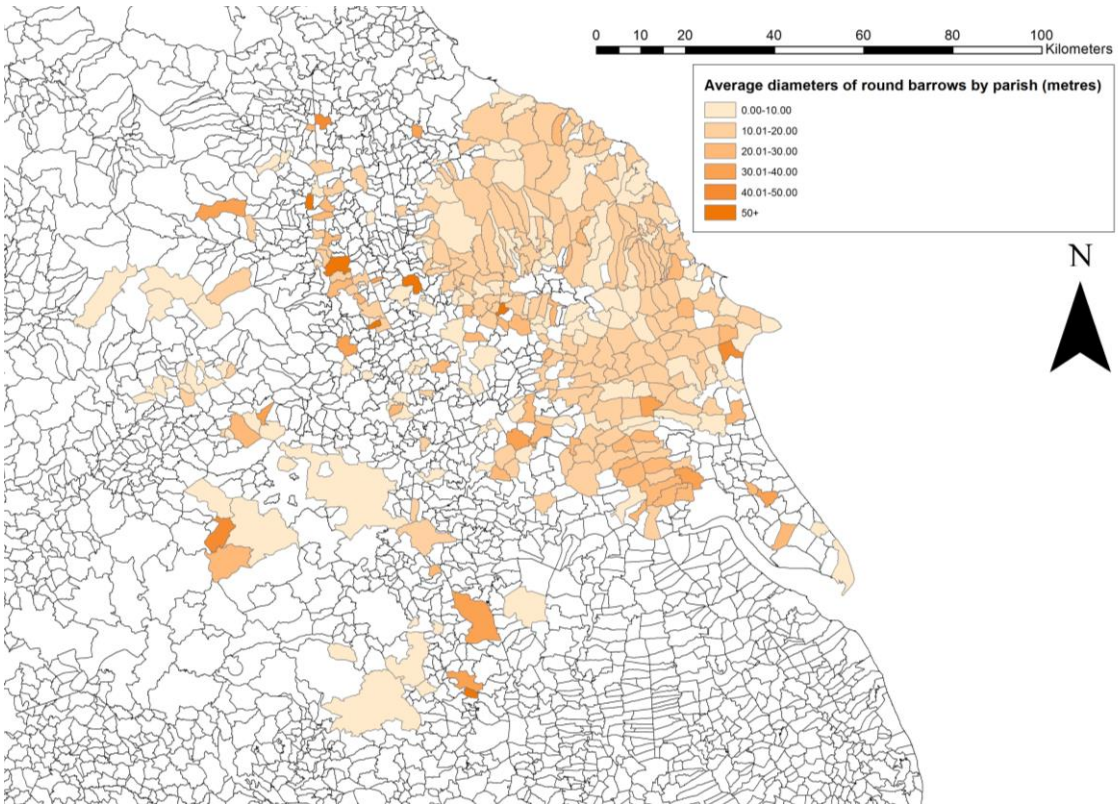

Figure 4.8: Average diameters of composite round barrows by parish

Parishes are fairly small areas of land that have been bounded areas for many hundreds of years and hence they are a useful and consistent, nominal variable by which the data can be examined. A current map for parishes in Britain has been combined with the collected dataset in Figure 4.5. The reasoning for using parishes is partly homage. Many of the early antiquarians such as Canon Greenwell and Reverend Lukis used the parishes to locate their sites. Relating parish to the mean diameter of the mounds, the darker the shading on the map, the higher the comparative average within that parish.

There is an even distribution of sites where the larger round barrows are found. The most densely sited regions have a much lower average diameter of sites. Only a few regions appear to have larger barrows along the Yorkshire Wolds, overlooking the Humber Levels, and the Cleveland Hills. There is a connection between the siting of round barrows and the role of composition in relation to barrow diameter. These were intended to be seen from a distance including the coast in some cases.

There is very little relationship between size of barrow mounds and the material from which they are constructed (see Figure 4.6 and Figure 4.8). The exception are round cairns that are much smaller and less-varied than size (see Figure 4.7). There is a geographical element in the materials used for mounds. In the vast majority of cases these were locally sourced. Location is a defining factor in the construction of round barrows influencing the mound material used but it appears that the contributing factors for size of round barrows require more investigation.

4.3.3. The role of structural features and burial mound composition

Architectural features, such as ring-ditches, kerbs, and stake-circles play a prominent part in mound-building. The role of these factors and their interdependent relationship with burial mound composition were addressed in Chapter 2. Very little work has been carried out to assess the validity of this premise. Table 4.2 lists various architectural features and breaks them down by composition.

		No. of barrows			
Composition		Earth	Cairn	Composite	*Total*
Ring-ditches	External	259	14	128	401
	Internal	12	0	6	18
Kerbs	External	10	29	91	130
	Internal	6	6	28	40
Stake circles		10	0	3	13
Total		297	49	256	602

Table 4.2: Architectural features in round barrows by composition

In Table 4.2 the most common architectural feature associated with round barrows are external ring-ditches (401 sites). Cairns have an extremely low association with ring-ditches (14 sites with external ring-ditches). These are binary variables: kerbs, ring-ditches, and stake-circles are either present or not present in the round barrow. Mound diameter has much more variance than the binary choices of the other variables. The best assessment for this data is Student's T-test. This identifies and compares the probability curves around sample means. It has been used here to

compare each round barrow mound composition's proportion of the data with a feature such as the presence of a ring-ditch or kerb and then against the other mound composition types. The T-test produces a probability that a particular mound composition will have the same presence of that feature – i.e. how much they could be said to be the same. Here T-testing is used to identify the difference and similarities of barrow mound compositions on the two most common features. These t-test probabilities are shown as a matrix of the round barrow composition types. The figures represent the probability that each composition having the same association with external ring-ditches rounded to two decimal places. The value of 1.00 indicates a strong correlation while 0.00 signifies significant diversity. Values of less than 0.10 indicate a difference between the two barrow compositions. The results of a T-test comparing the incidence of external ring-ditches with burial mound composition is shown in Table 4.3 below:

	Percentage with external ring-ditch	**Probability of having the same incidence of external ring-ditch**			
Mound composition		No mound	Earth	Cairn	Composite
No mound	51%	-	0.00	0.00	0.00
Earth	34%	0.00	-	0.00	0.00
Cairn	9%	0.00	0.00	-	0.18
Composite	20%	0.00	0.00	0.18	-

Table 4.3: Results of T-test comparing burial mound composition with the presence of external ring-ditches

Sites without recorded mounds have the highest percentage of external ring-ditches. This is unsurprising because the majority of these were discovered through aerial photography. They were identified as ring-ditches in the landscape. The chance that these are the same as the other mound composition types is lower than one in hundred. In many cases sites without a recorded burial mound are not the same as the other barrow compositions. This indicates that the presence of a ring-ditch does not always indicate that the site was previously a round barrow.

The relationship of composite barrows to external ring-ditches is different. There are a similar number of earthen mounds compared to composite sites. The association between composite round barrows and external ring-ditches is lower with a probability of roughly one in a hundred. They are closer to cairns than earthen mounds or sites without recorded mounds.

The numbers of external kerbs associated with round barrows is smaller than that of external ring-ditches. In Table 4.4 below the resulting significances derived from t-testing are much weaker despite showing stronger relationships. There is a very poor association of external kerbs with earthen mounds and none for identified sites without mounds. This contrasts with the relationships between cairns and composite barrows. These are tenuous: less than one in twenty. The significances for external kerbs are weaker because of the lower frequency but it is probable that cairns and composite have a similar proportion of incidence. This contrasts with those sites without mounds and those with earthen mounds that are similar to each other and in the main lacked external kerbs.

	Percentage with external kerb	**Probability of having the same incidence of external kerb**			
Mound composition		No mound	Earth	Cairn	Composite
No mound	0%	-	0.85	0.03	0.01
Earth	1%	0.85	-	0.04	0.01
Cairn	18%	0.03	0.04	-	0.63
Composite	14%	0.01	0.01	0.63	-

Table 4.4: Results of T-test comparing burial mound composition with the presence of external kerbs

4.3.4. Distribution of structural features

There are statistical tests available for the architectural features such as internal ring-ditches and stake-circles but these are suspect given their smaller presence in the dataset. Examining architectural features such as ring-ditches and kerbs on a geographical basis shows the possible trends. Ring-ditches have been considered as mnemonic ritual aids (Nowakowski, 2007) and as the source of quarried material for

burial mounds (Grinsell, 1936). The distribution of barrows with external ring-ditches is shown in Figure 4.9 where there is a wide distribution of these sites very similar to those in . This is because many of the sites in the broad data-set have only been detected as ring-ditches (as discussed in Section 4.3.3). Internal ring-ditches indicate expansion of a round barrow. In Figure 4.10 there is a tight focus on the Yorkshire Wolds and the hills above the Vale of Pickering. Kerbed barrows are concentrated towards the north-east of Yorkshire in Figure 4.11. There are examples in Howardian Hills, one in the Wolds, and two in the Vale of York. This contrasts with Figure 4.9 where more ring-ditches are found in the Yorkshire Wolds. The distribution of sites with internal kerbs shown in Figure 4.12 is more diffuse within eastern Yorkshire but there are two examples near the Rivers Swale and Aire.

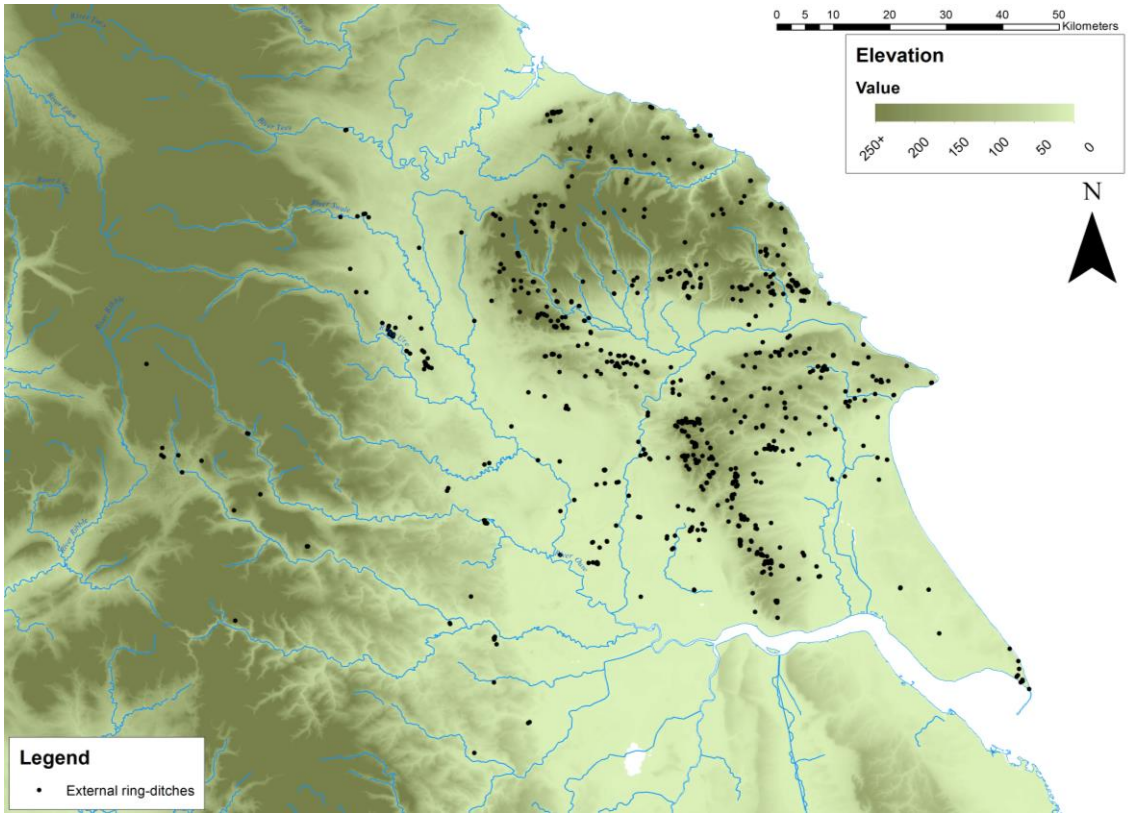

Figure 4.9: Distribution of external ring-ditches in Yorkshire

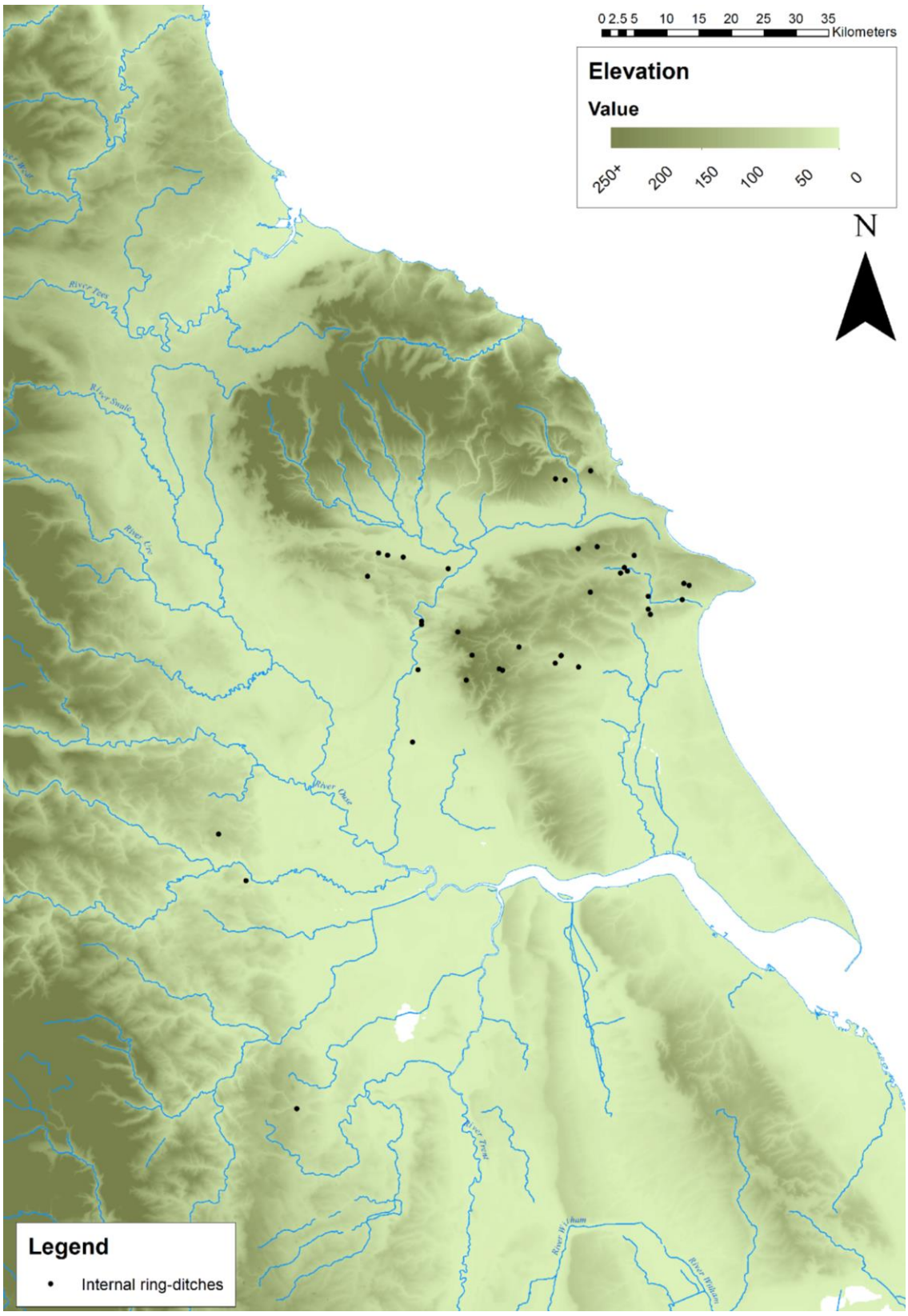

Figure 4.10: Distribution of internal ring-ditches in Yorkshire

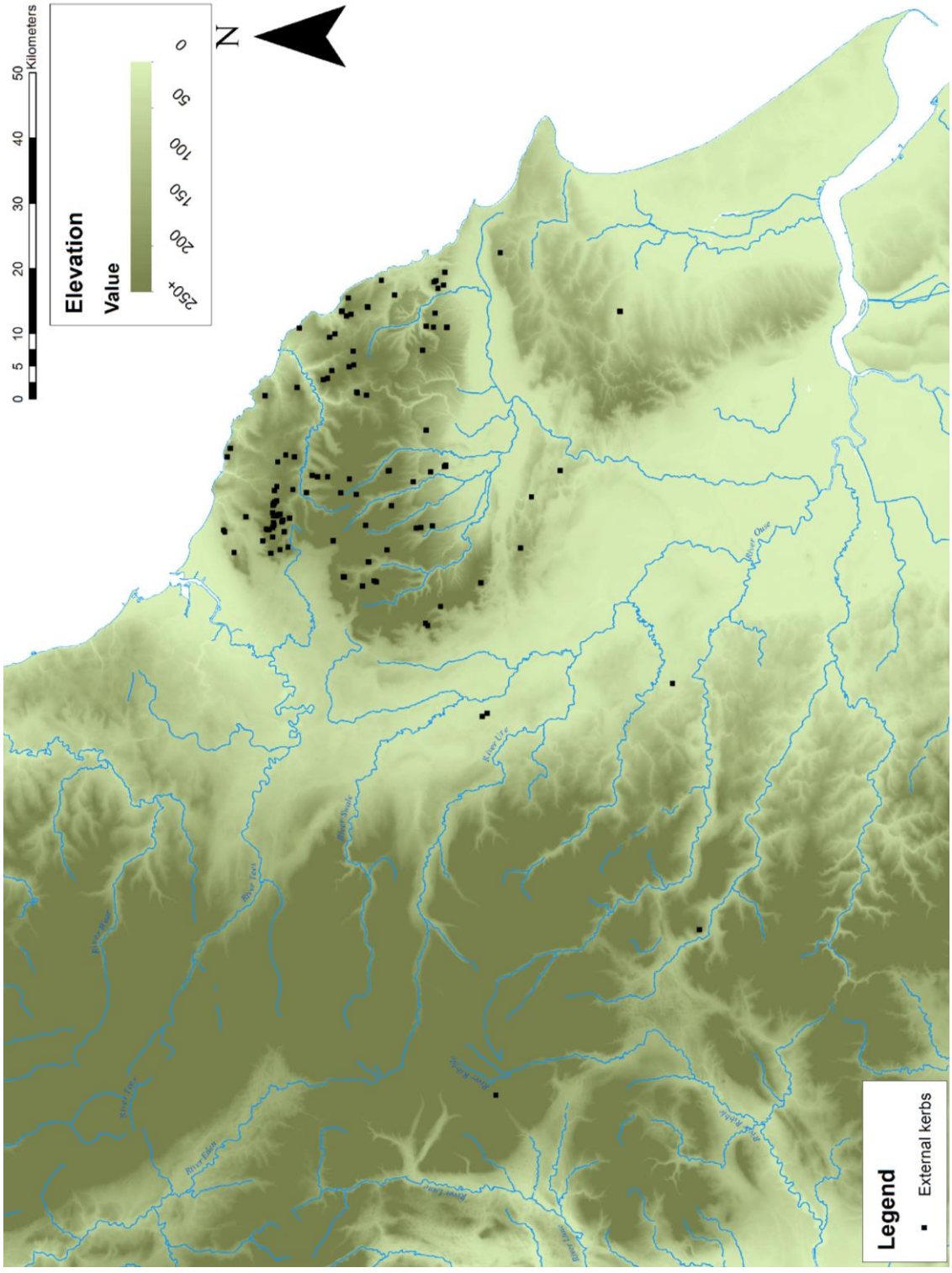

Figure 4.11: Distribution of external kerbs in Yorkshire

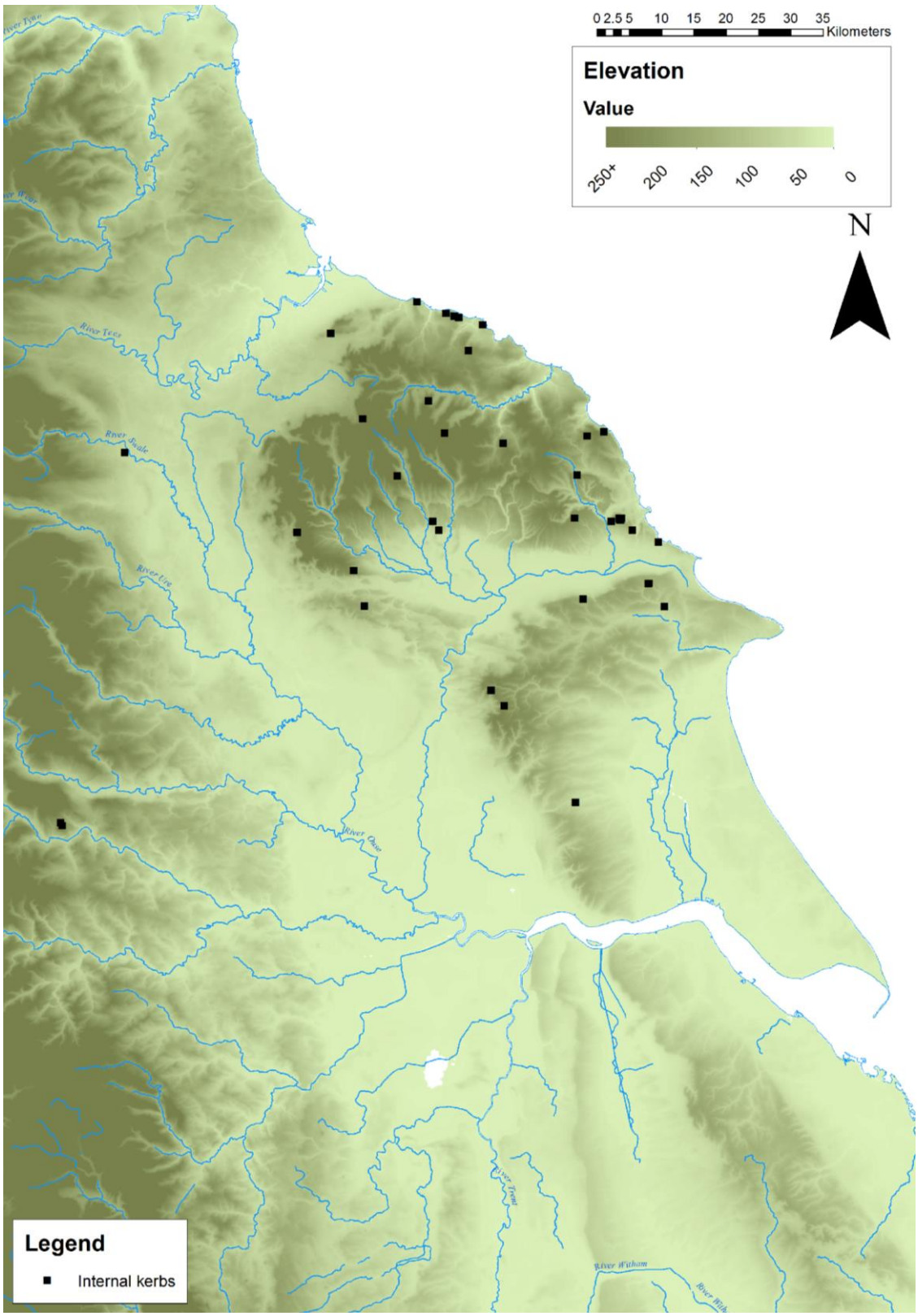

Figure 4.12: Distribution of internal kerbs in Yorkshire

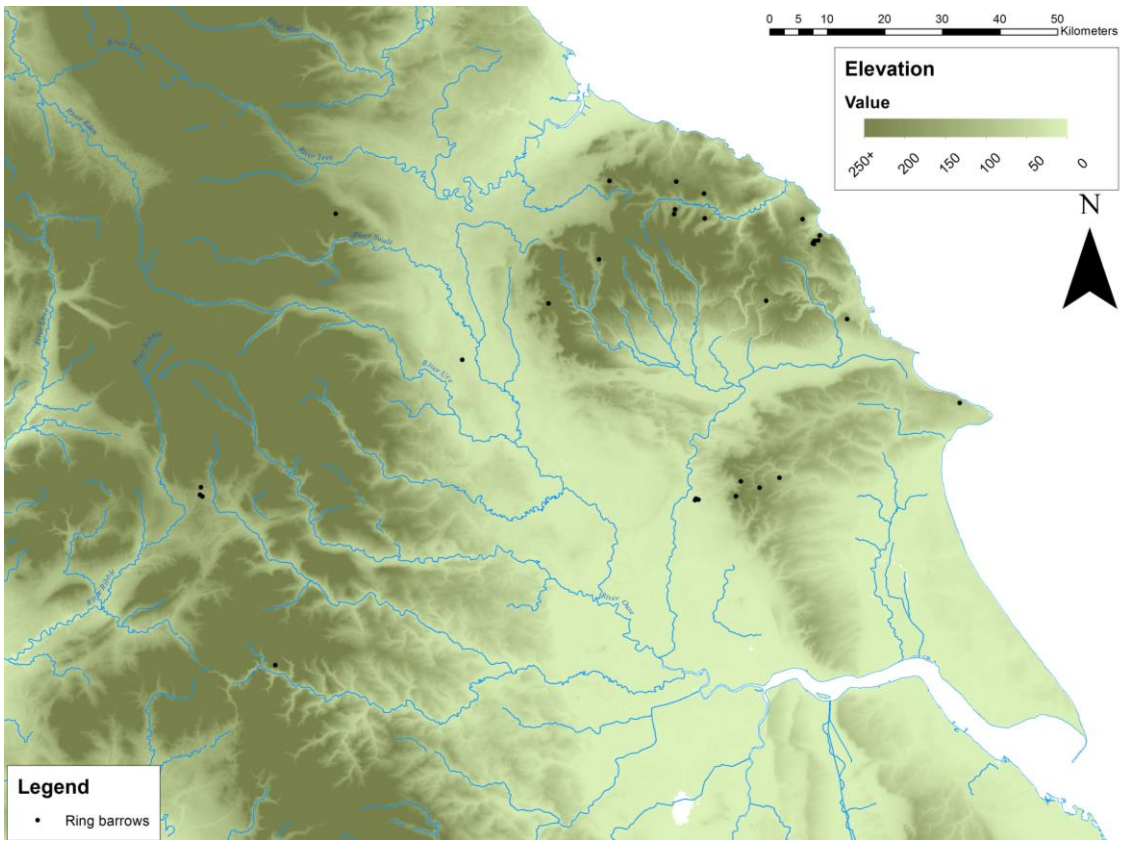

Figure 4.13: Distribution of ring barrows in Yorkshire

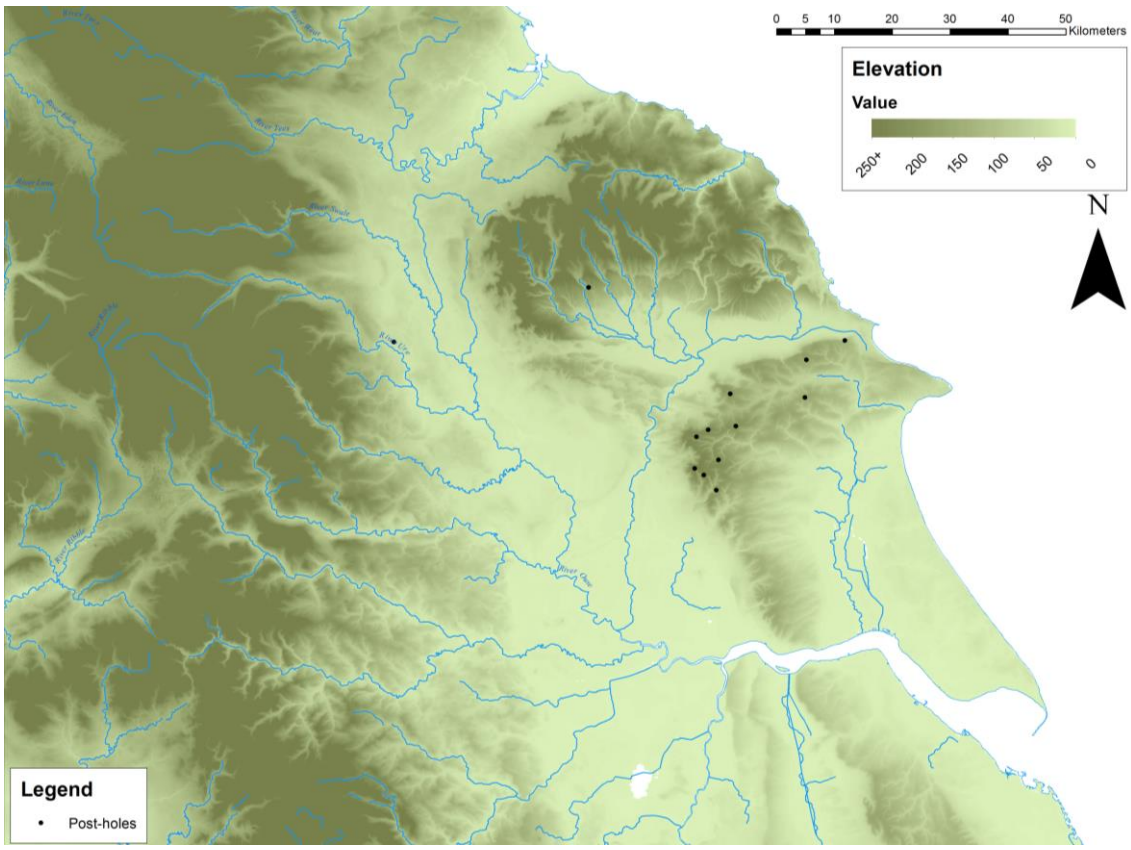

Figure 4.14: Distribution of post-holes/stake-circles in Yorkshire

The close proximity of these sites to one another shows that expansion of barrow sites took place in a concentrated area. Some monuments remained a focus for many generations. The presence of ring-ditches surrounding cairns on the North Yorkshire Moors in close proximity to similar composite barrows indicates that the selection of architectural features could be aesthetic in nature. These findings are similar to those earth and composite barrows that have kerbs. In these cases there is an aesthetic or ritual element at work here where existing sites were adapted to fit that sensibility. This might be more widespread as the majority of internal kerbs are found in composite barrow. There are a handful of earth mounds with internal kerb. This indicates expansion of a barrow or where a kerb was an existing feature later mounded over. Further evidence of the more intense expansion in the Yorkshire Wolds where these stone kerbs are found within barrows.

Kerbs, stake-circles or ring barrows can represent elements of existing 'open arena' monuments that were later mounded over (Garwood, 2007). Stake-circles and ring barrows are associated as 'open-arena' monuments. It is likely that they served very different purposes before becoming incorporated into burial mounds. Ring barrows (Figure 4.13) have a much wider distribution than post-circles (Figure 4.14) within barrows. Both features are concentrated in east Yorkshire. Stake-circles are concentrated in the Wolds. Cairn-rings tend to the north around Robin Hoods Bay and the Esk. They are placed at ideal locations to be viewed from a distance indicating that these sites had ritual focus before they became barrows.

4.4. Artefact distribution in round barrows

Early Bronze Age pottery and recent developments in typology and chronology were covered in extensive detail in Chapter 2. There are four types of vessel that this thesis examines in relation to round barrows: Beakers, Food Vessels, Collared Urns, and Accessory Cups. Due to the extensive work in relative dating, this can be used to establish a semblance of chronology in the Yorkshire round barrows.

Table 4.5 shows the Beaker types as identified by Needham (2005) and the number of round barrows that have Beaker-associated burials. Early Long-Necked Beakers are the most common type with 14 sites associated with them, followed by S-Profile varieties

that have been found in 10 round barrows, and finally earlier Carinated Beakers have only been identified in 6 sites in Yorkshire.

Beaker Type	**Number of barrows**
Low-Carinated	0
Tall Mid-Carinated	1
Weak-Carinated	5
Short-Necked	6
Long-Necked (early)	14
Long-Necked (late)	2
Low-Bellied S-Profile	0
High-Bellied S-Profile	3
Globular S-Profile	3
Slender Mid-Bellied S-Profile	4
Total	38

Table 4.5: Beaker types associated with burials

This correlates with Needham's findings for Beaker vessels across Britain with the zenith of their usage occurring between c. 2250-1750 BC (2005). The presence of Carinated Beakers dating from c. 2200 BC indicates that there was access to these vessels before their surge in popularity. They are taken up with enthusiasm in a short span of time as Long- and Short-Necked Beakers become more popular within 200 years. The continuing presence of S-Profile Beakers represents a slight wane towards the end of general Beaker usage in c. 1700 BC.

Food Vessel Type	**Number of barrows**
Vases	120
Bowls	12
Urns	11
Total	143

Table 4.6: Food Vessel types associated with burials

Food Vessels are more prolific in Yorkshire mortuary practice. Table 4.6 shows the presence of Food Vessels in burials divided by type; Vases absolutely dominate the area, followed by a limited number of Bowls and Urns. There are many more Food Vessel burials than Beaker burials in Yorkshire.

Pottery type	**Number of barrows**
Collared Urns	175
Accessory Cups	73
Total	248

Table 4.7: Collared Urns and Accessory Cups associated with burials

Both Collared Urns and Accessory Cups are in use between c. 2000-1500 BC across Britain. Table 4.7 shows the numbers of round barrows containing these vessels. Comparing the results with Table 4.5 and Table 4.6 shows that Collared Urns are the most significant pottery tradition in Yorkshire round barrows between c. 2500-1500 BC. Accessory Cups are less prevalent but also represent a significant proportion of identified pottery from barrows. Figure 4.15 shows the breakdown of pottery traditions in round barrows in Yorkshire. As above Collared Urns are the most significant element of the dataset, followed by Food Vessels, then Accessory Cups, and finally, Beakers.

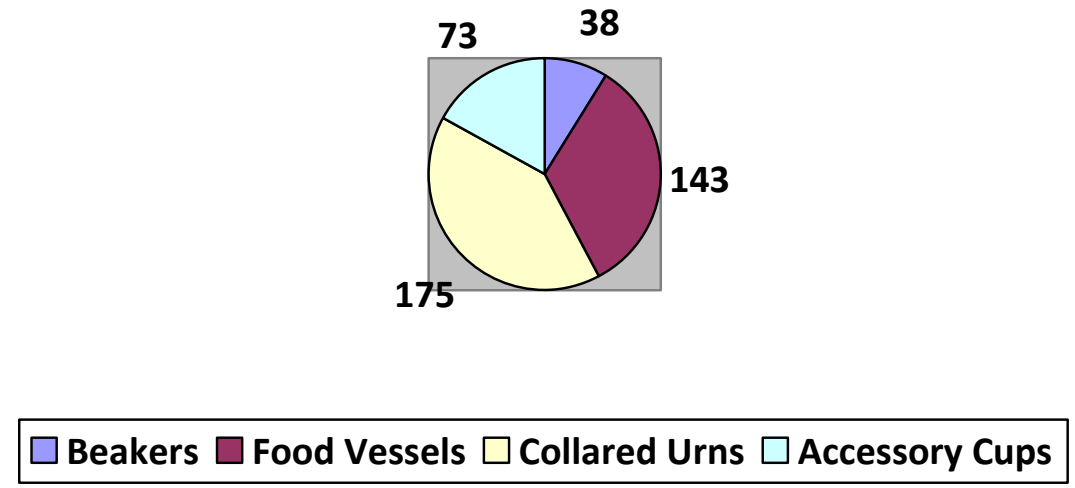

Figure 4.15: Comparative pottery associations in round barrows

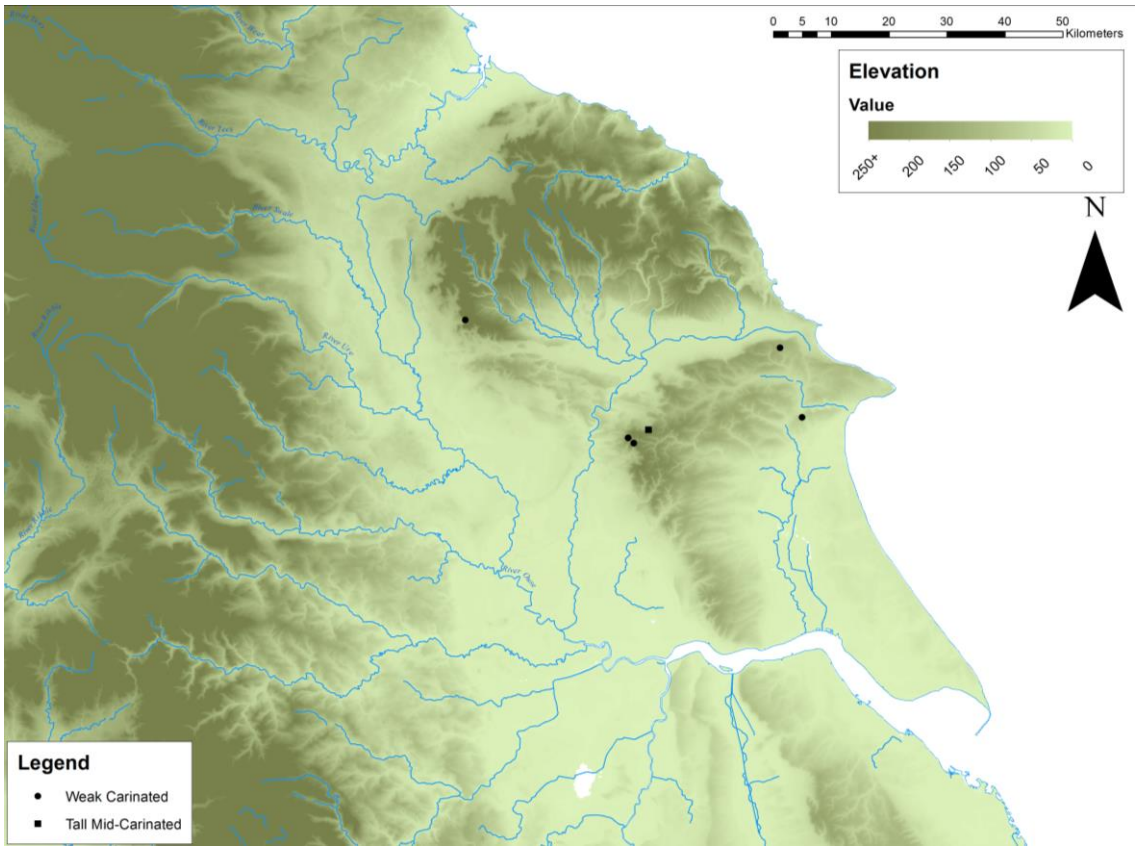

Figure 4.16: Distribution of Carinated Beaker burials

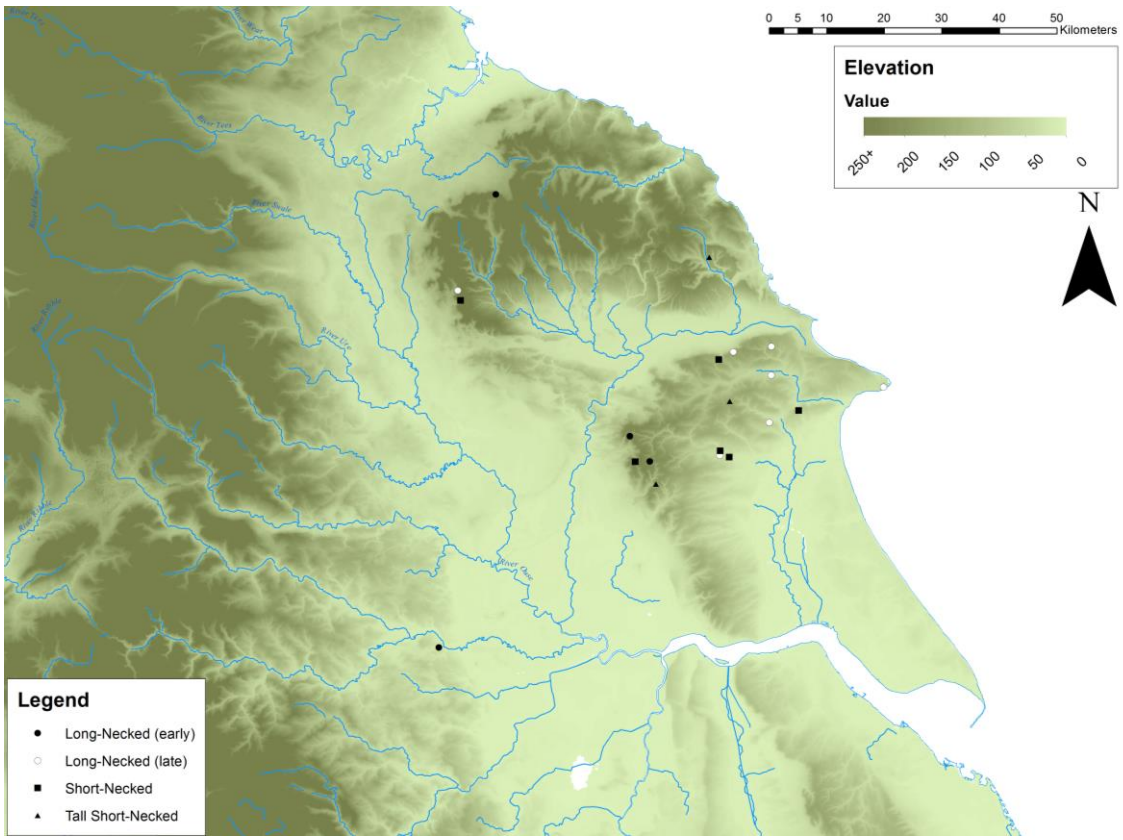

Figure 4.17: Distribution of Necked Beaker burials

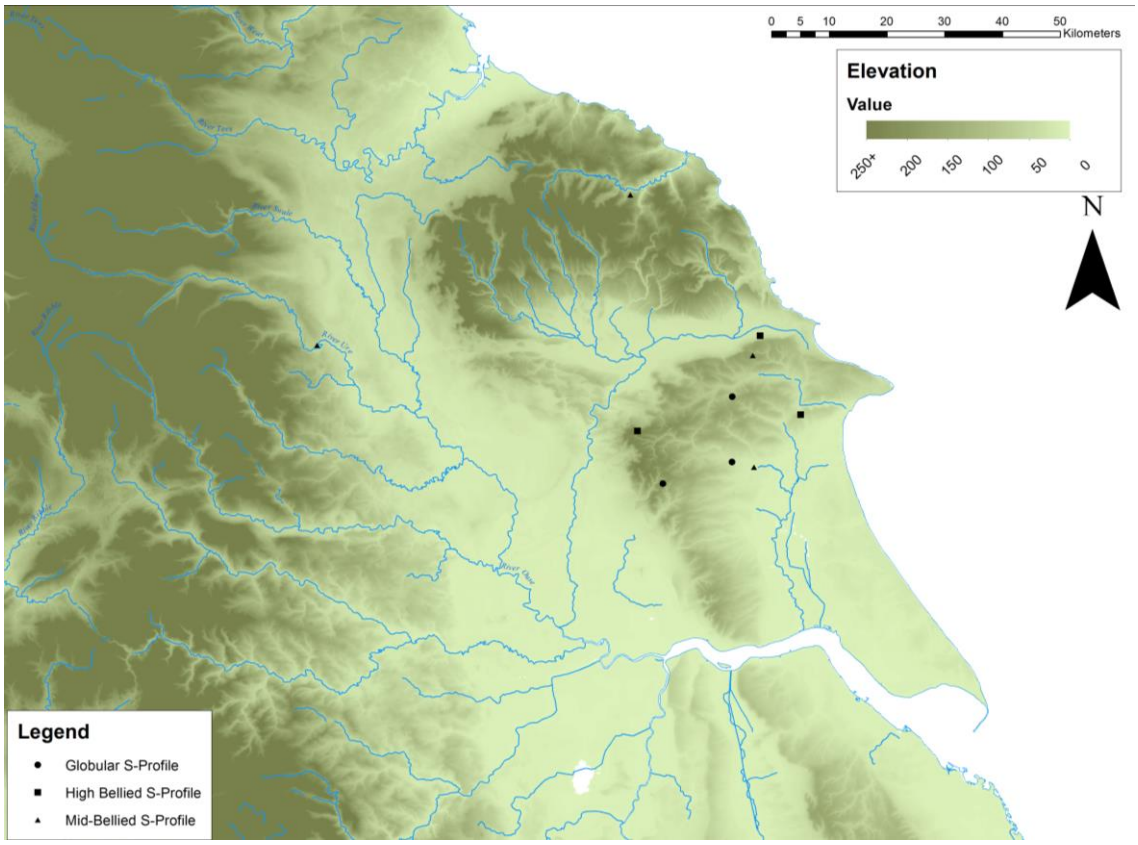

Figure 4.18: Distribution of S-Profile Beaker burials

Beaker types within Yorkshire have been plotted on Figure 4.16 to Figure 4.18. Overall Beaker burials are concentrated on the Yorkshire Wolds with outliers on the North Yorkshire Moors and near the base of the Pennine Hills. Alignments appear such as the line of barrows in the Cleveland Hills overlooking the Vale of Mowbray running from north to south along the hills. There appears to be a relationship with water as evinced by those sites in the west found near the Ure, between the Nidd and the Wharfe, and south of the Aire.

The distribution of Beaker vessels in their specific mortuary contexts centres on the Wolds with a definite concentration around the north-western escarpment. This would indicate that this part of Yorkshire became a centre for mortuary practice with the practice of Beaker burial taking root within the Wolds during c. 2250 BC but spreading sparsely elsewhere during c. 2100/2000 BC. The North Yorkshire Moors also have a significant number of round barrows but only a handful of Beaker burials. This indicates that the uptake of these vessels was not as successful as it was further south. A single example in the Ure-Swale interfluve suggests that there was little interest in Beaker mortuary practices to the west as well. The earlier Weak-Carinated tradition (Figure 4.16) appears on the edge of the Cleveland Hills, the north-western escarpment of the Yorkshire Wolds, and overlooking the Gypsey Race bordering Holderness. Short-Necked Beakers (Figure 4.17) appear to be close to the initial Weak Carinated sites with one burial to the south along the escarpment and another to the east, nearer to Holderness. The S-Profile tradition (Figure 4.18) and later Beaker uptake remains focused on the Wolds but with outliers in the Ure-Swale interfluve and the North Yorkshire Moors. By the end of the Beaker period, they spread further but the Wolds remain the focus of these sites. The Moors' uptake of Long-Necked traditions (Figure 4.17) indicates some northerly spread of these vessels from c. 2200 BC onwards. In the Wolds Beaker were adopted and retained the influx newer styles but other areas preferred other vessels in association with burials.

Compared to Beakers, there is a marked increase and spread in the number of burials with Food Vessels shown in Figure 4.19 to Figure 4.21. This practice is found north of the Esk and further south along the Wolds toward the Humber. There are more

examples of these sites in the Ure-Swale interfluve, Nidderdale, Wharfedale, Airedale, and the Howardian Hills. Barrows with Food Vessels are more concentrated in the Wolds with distinct clusters developing in the north-west escarpment, around the Gypsey Race, and in the lowlands towards the neighbouring Holderness.

The period c. 2100-1700 BC represents a high-point for burial activity in the round barrows of Yorkshire as both Long-Necked Beakers (Figure 4.17) and Food Vessel Vases (Figure 4.19) are in currency during that time, as well as the less-popular S-profile traditions (Figure 4.18). There is overlap between Beaker and Food Vessel usage in Yorkshire material particularly on the Wolds and the North Yorkshire Moors but overall Food Vessels have the wider distribution across Yorkshire.

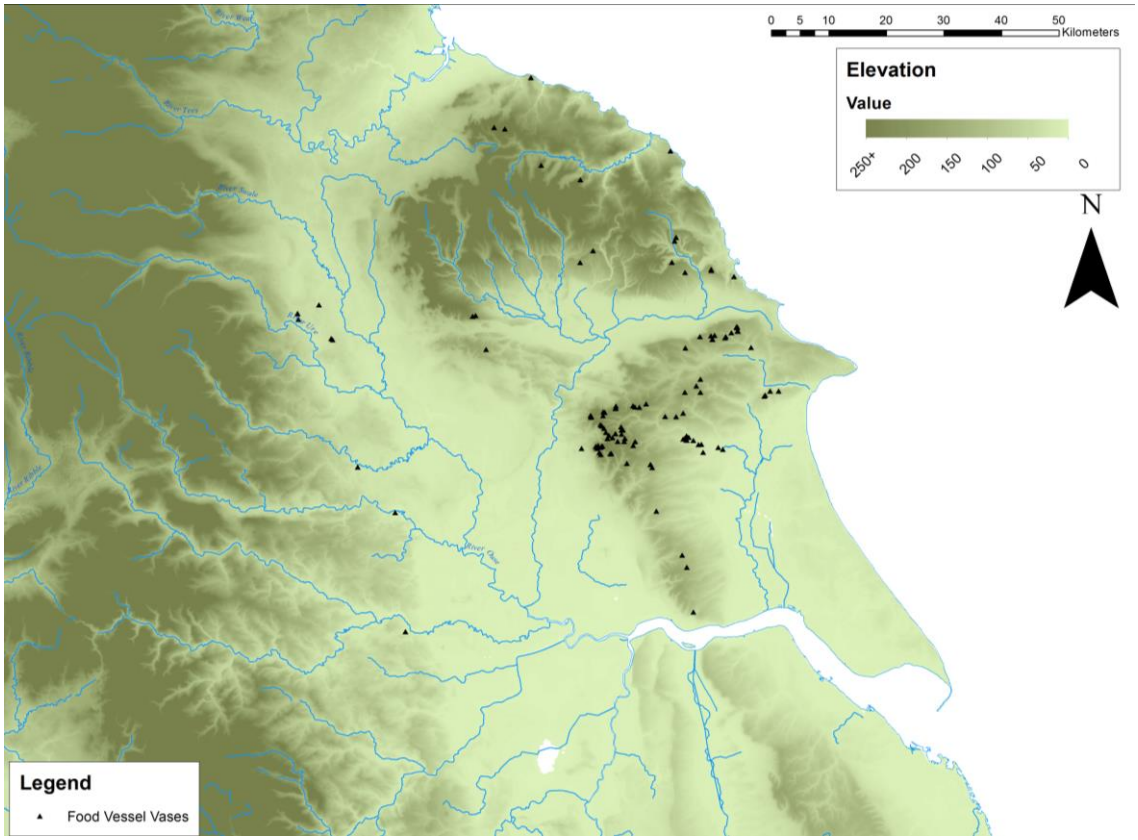

Figure 4.19: Distribution of Food Vessel Vase burials

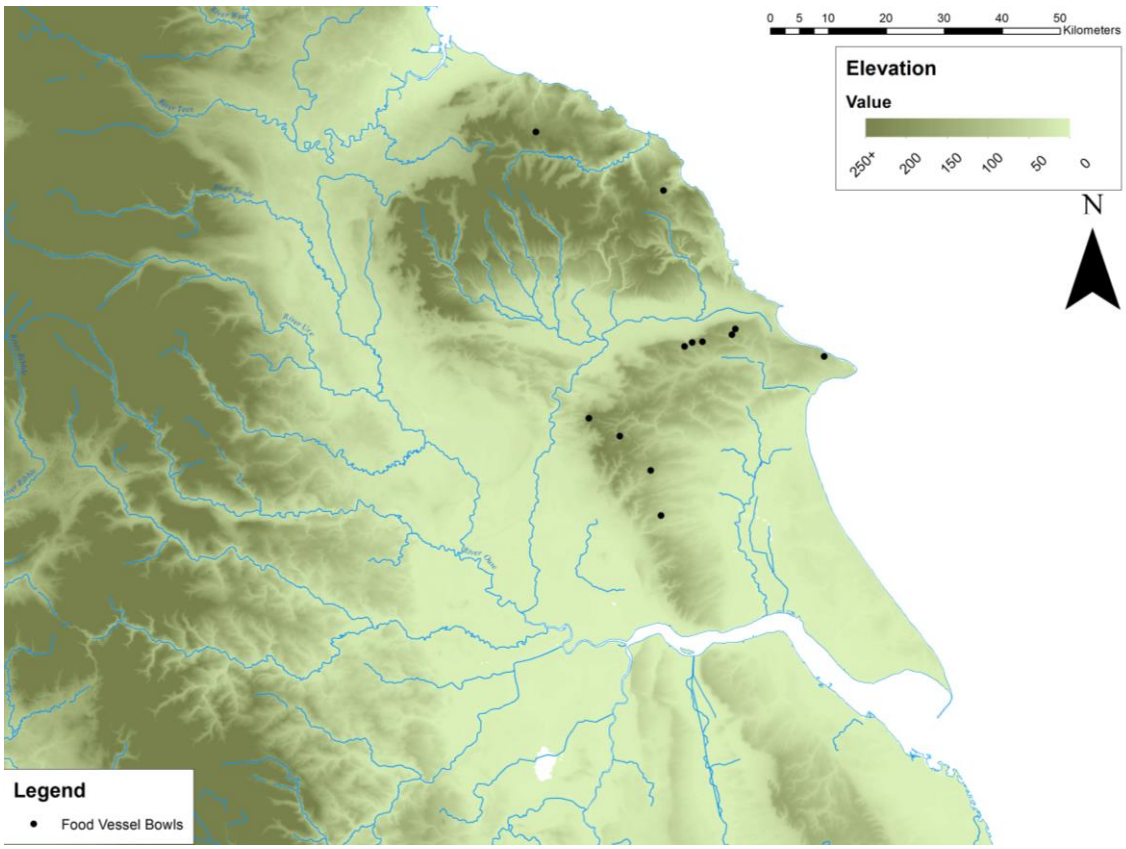

Figure 4.20: Distribution of Food Vessel Bowl burials

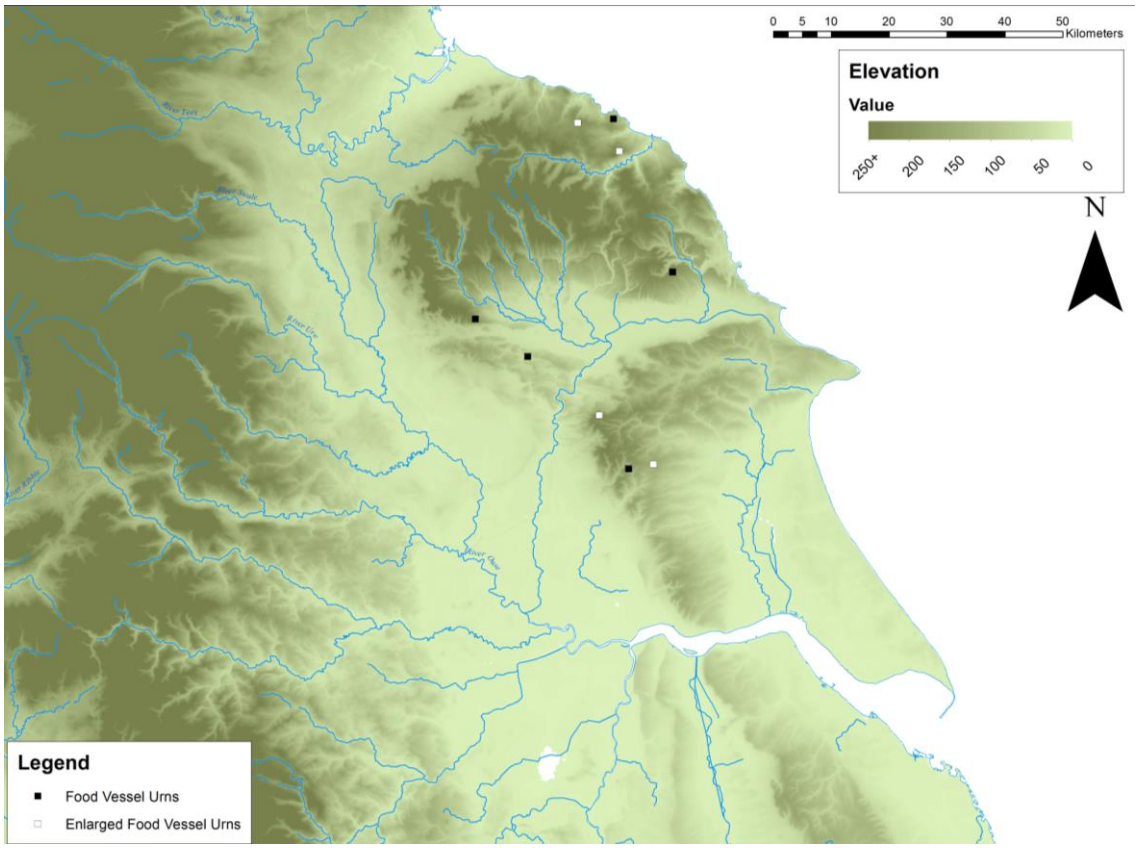

Figure 4.21: Distribution of Food Vessel Urn burials

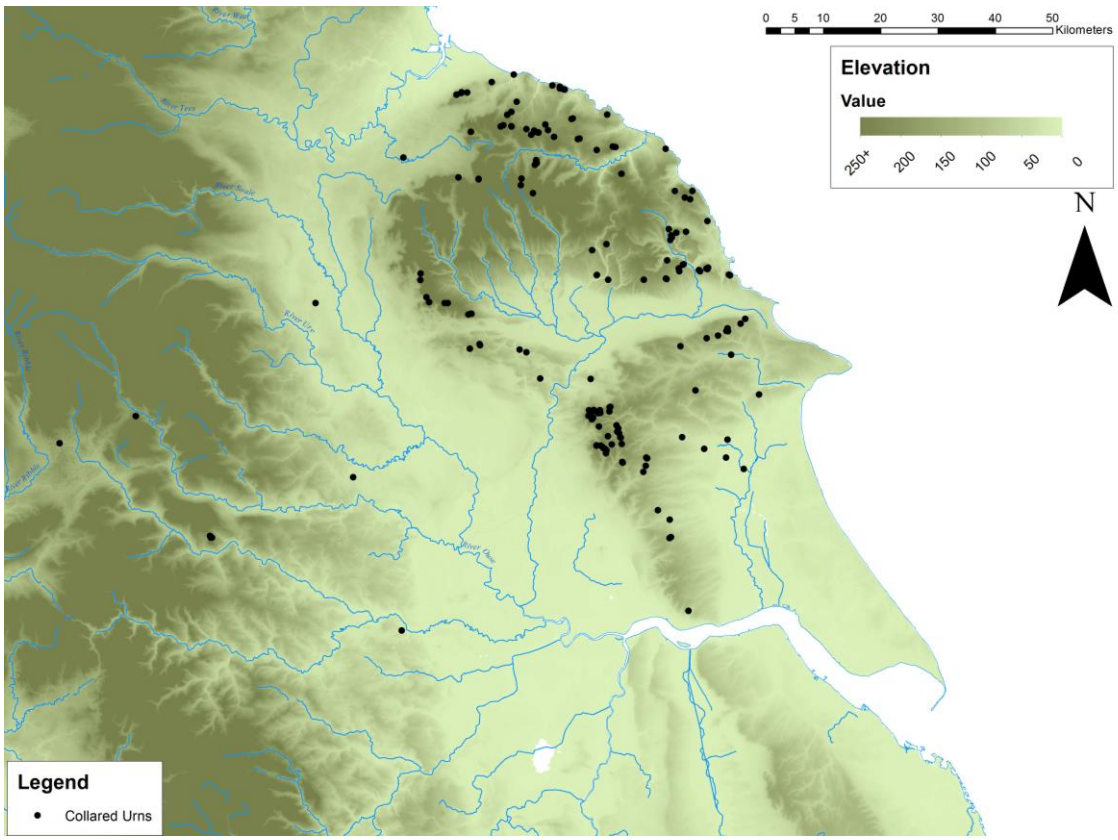

Figure 4.22: Distribution of Collared Urns

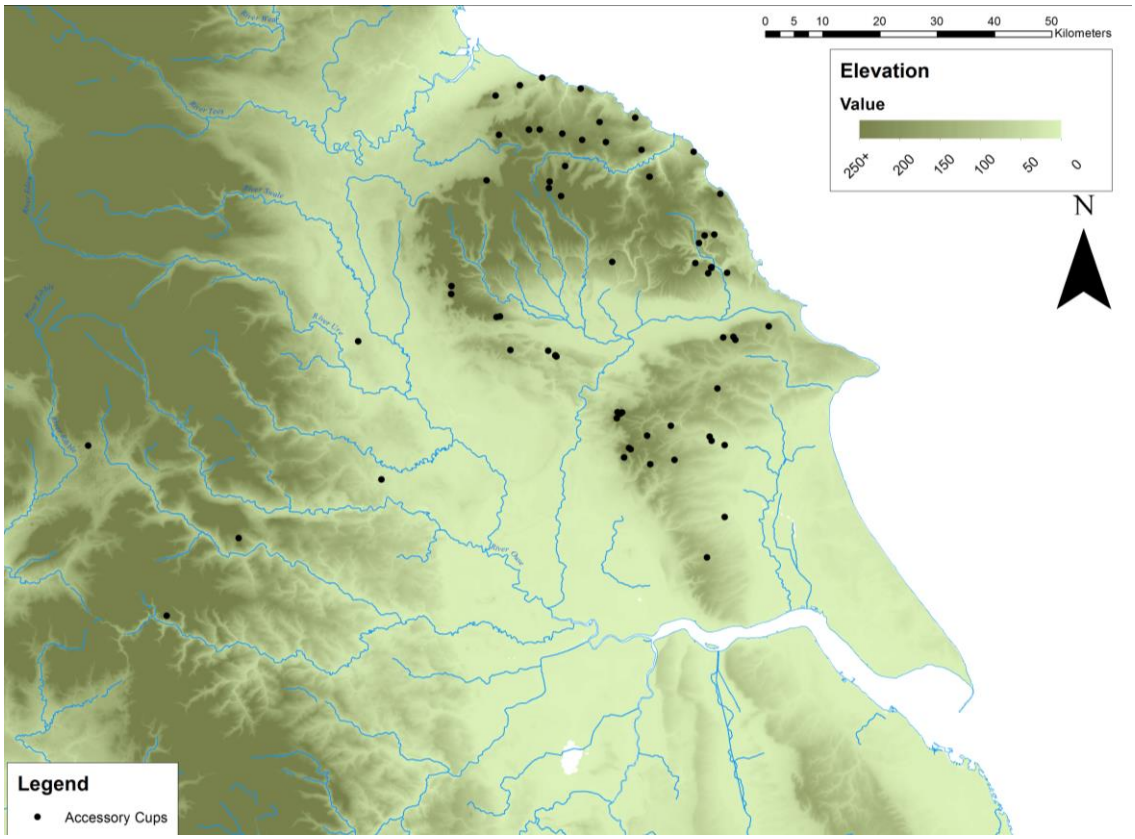

Figure 4.23: Distribution of Accessory Cups

Collared Urns are focused in eastern Yorkshire with a particular concentration on the north-western escarpment in Figure 4.22. Definite clusters appear at the north of Esk, east of the Derwent, and in the Cleveland and Howadian Hills. There is definite spread to the west of Yorkshire with three examples near the Pennine-Dales fringe. There are fewer Accessory Cups in Yorkshire than Collared Urns and their range is more diffuse with examples from all over the region in Figure 4.23. In contrast with the previous pottery types, Accessory Cups are not entirely fixed on the Wolds. There are more examples in the east of Yorkshire than the west but this might be a result of the weighting of the data to that particular area.

Other objects are found in association with the dead in round barrows. Some such as jet had a local provenance but metalwork likely had its origins outside of Yorkshire. With the largest deposits in Britain off the north-east coast of Yorkshire, jet would have been easily accessible during the Early Bronze Age as it washes up on the coast south of the Tees. Jet objects found in association with burials have been recorded in Figure 4.24 and Figure 4.25.

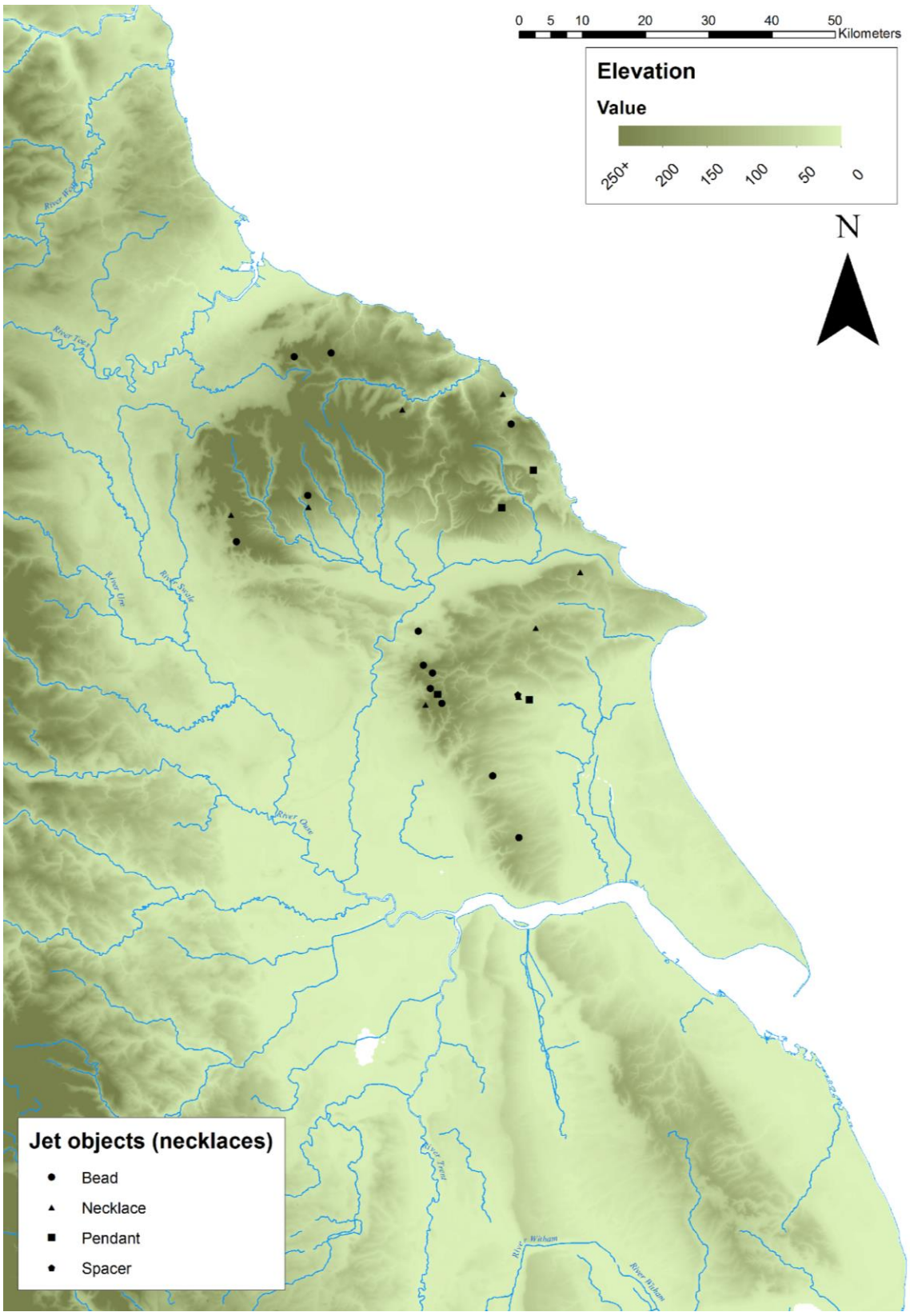

Figure 4.24: Distribution of jet items (neck adornments)

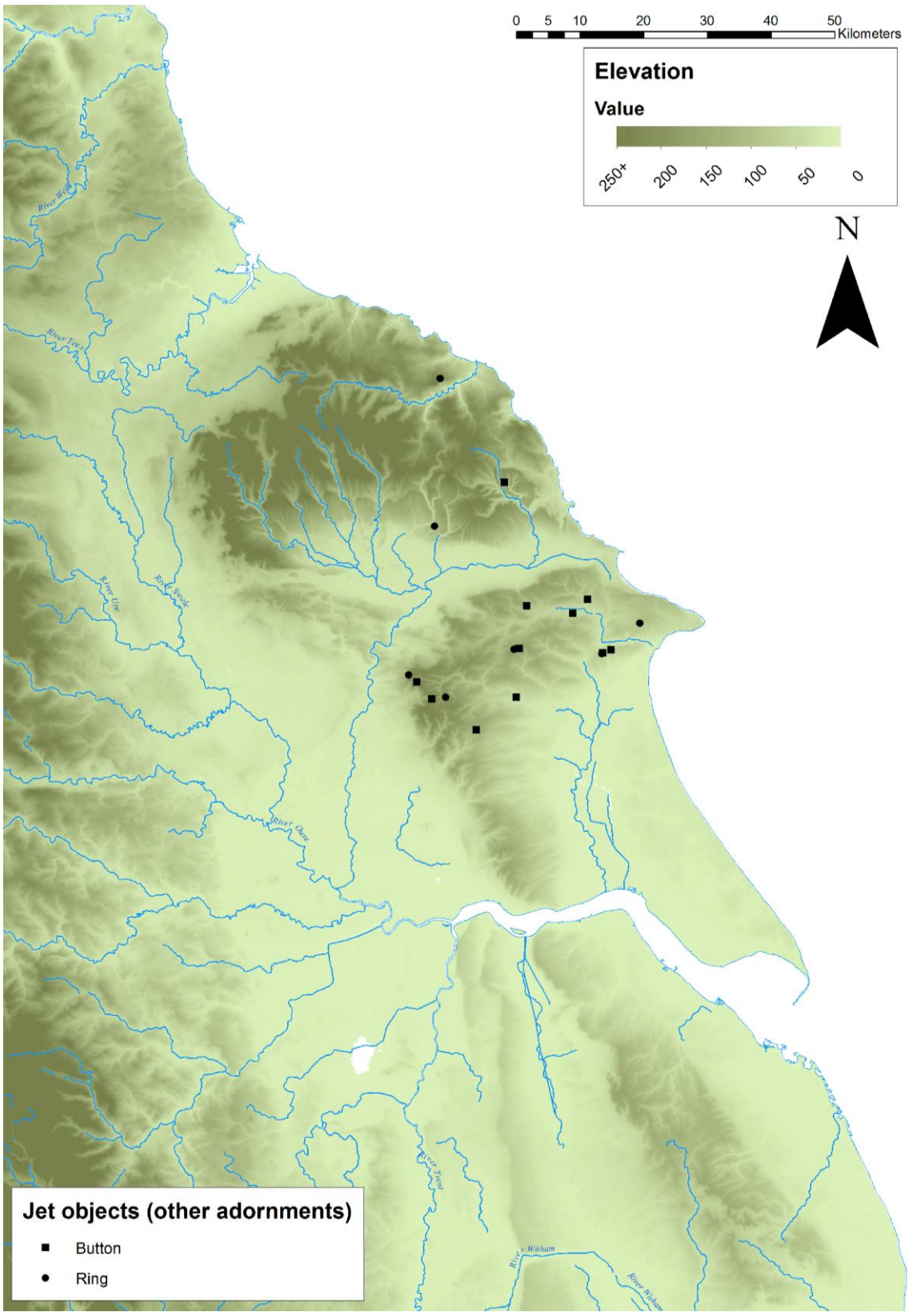

Figure 4.25: Distribution of jet buttons and rings

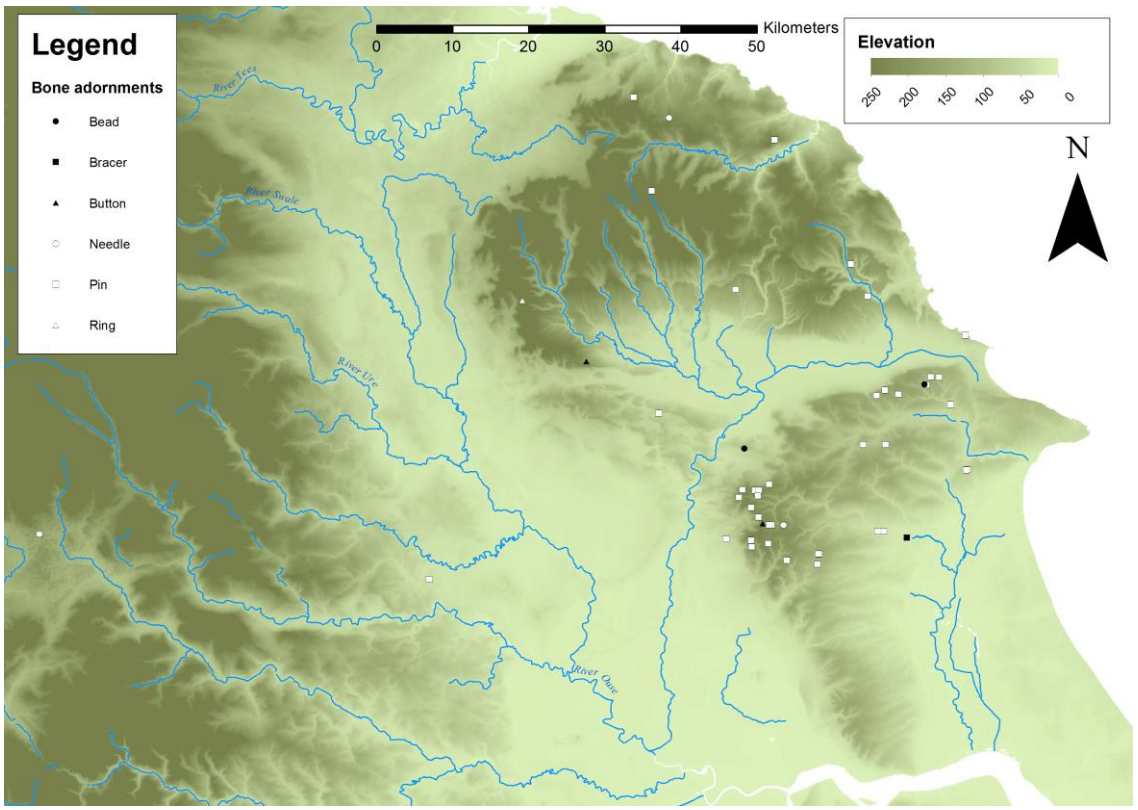

Figure 4.26: Distribution of bone adornments

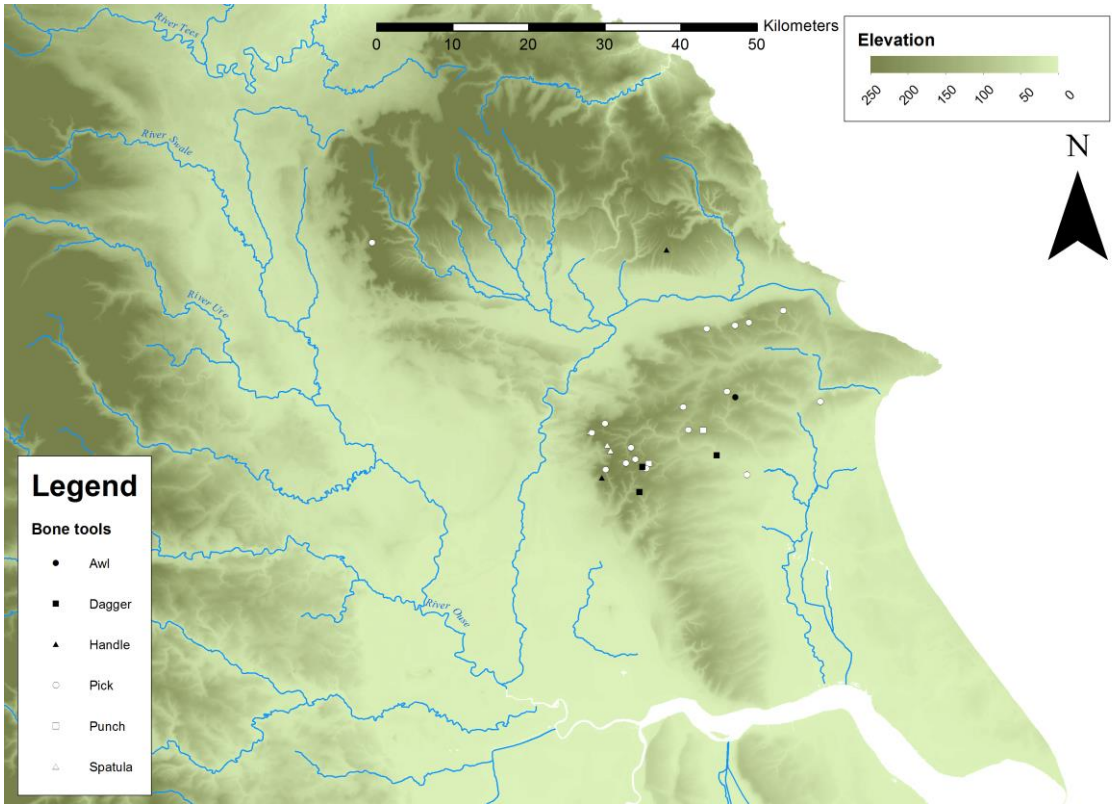

Figure 4.27: Distribution of bone tools

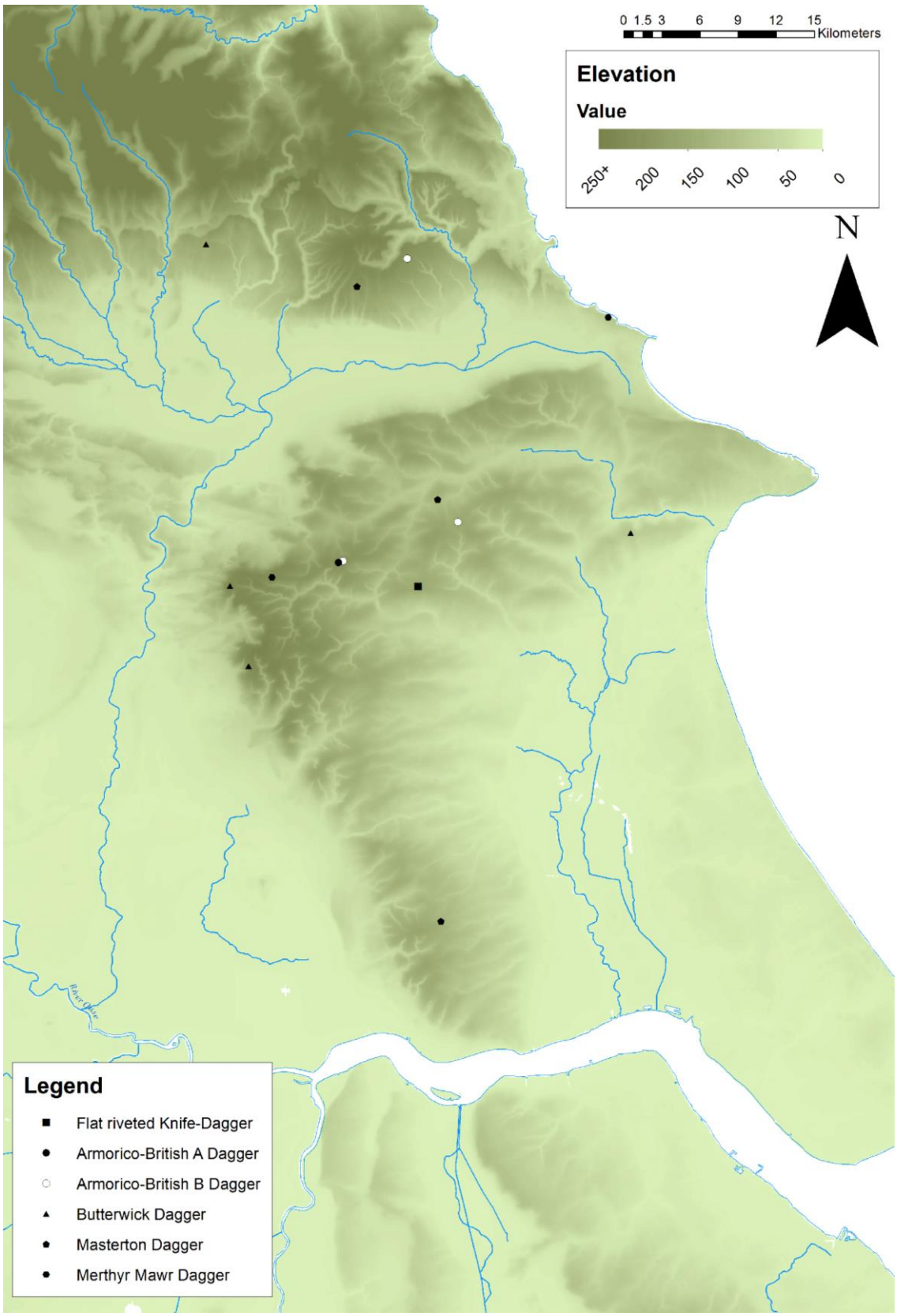

Figure 4.28: Distribution of daggers

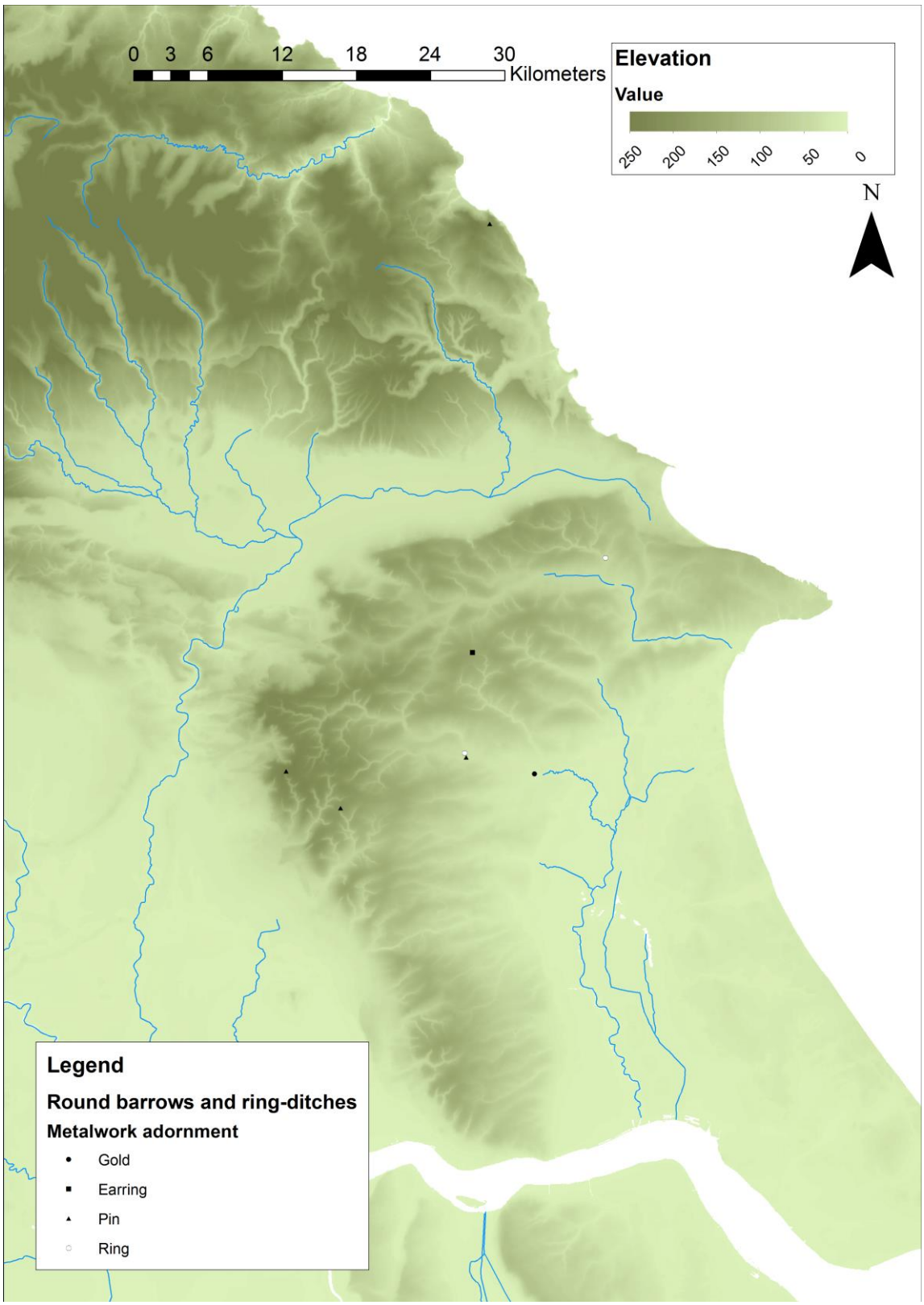

Figure 4.29: Distribution of metalwork adornment

These items are distributed exclusively in the eastern half of Yorkshire with the highest concentration and diversity of items being found in barrows in the north-western escarpment of the Wolds. There is a division in the kinds of objects found; necklaces,

beads or pendants are the most common north of the Vale of Pickering on the North Yorkshire Moors (Figure 4.24). While these objects are also found on the Wolds, the majority of jet items there are rings and studs (Figure 4.25). Overall distribution is extremely diffuse, especially on the North Yorkshire Moors, in contrast with the ready availability of the material.

In Figure 4.26 and Figure 4.27, the bone artefacts associated with burials have been plotted. As we can see, bone pins are the most common items with a distinct concentration on the north-western escarpment of the Wolds. Similarly, bone needles, buttons, and other adornments are located in close proximity to these sites. There are also other examples within the North Yorkshire Moors and near to the Aire and the Nidd. The presumable ease of access to animal bone would explain the commonality of this object type in the Yorkshire data but its distribution is similar to jet artefacts with richer burials focused on the north-western escarpment of the Yorkshire Wolds.

4.5. Treatment of the dead

The shift from inhumation to cremation and the various approaches and interpretations to understand it were discussed in Chapter 2. The section addresses distribution of those practices along with other associated material culture such as cists and coffins across Yorkshire.

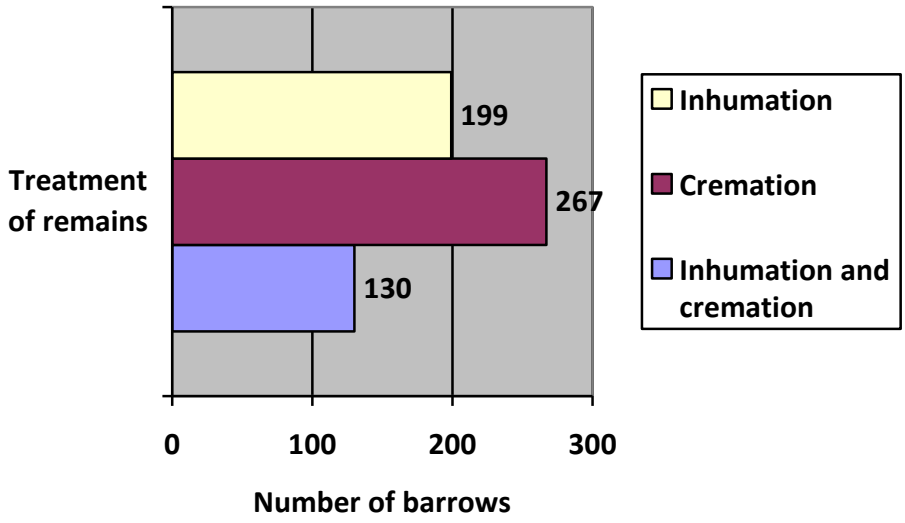

Figure 4.30: Treatment of remains in Yorkshire round barrows

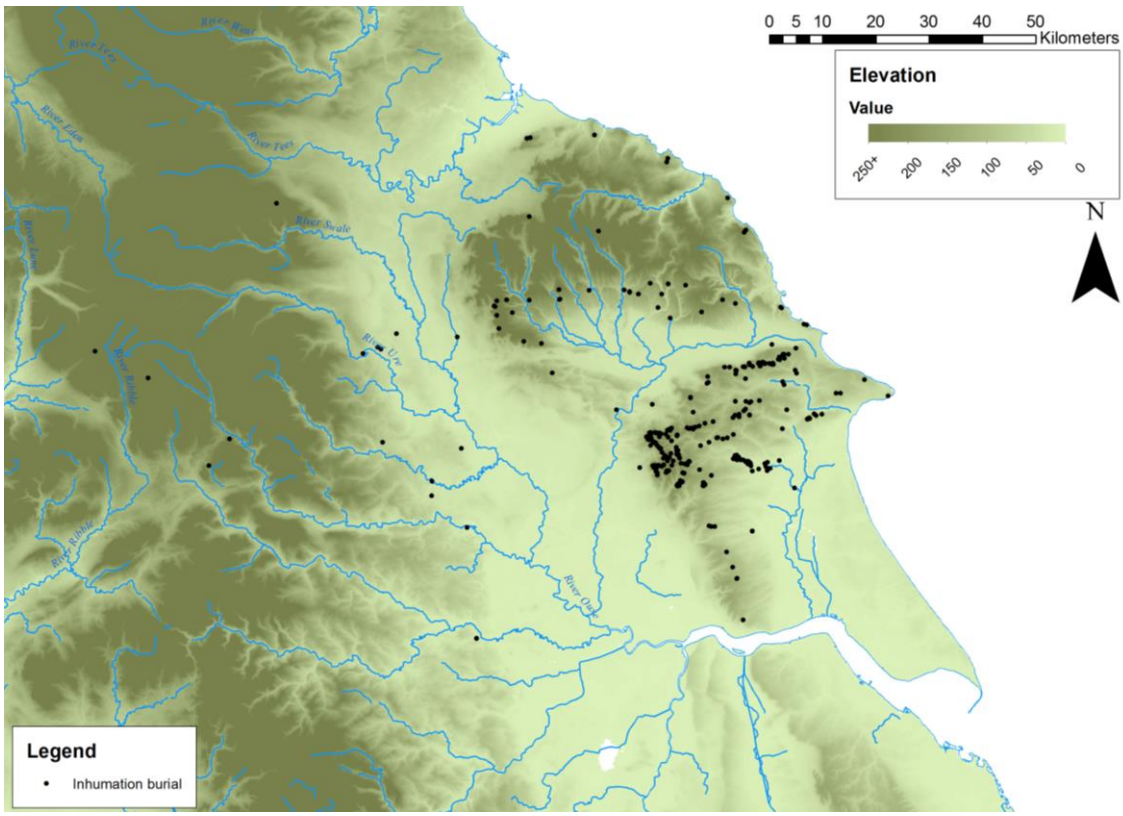

Figure 4.31: Distribution of inhumation burials

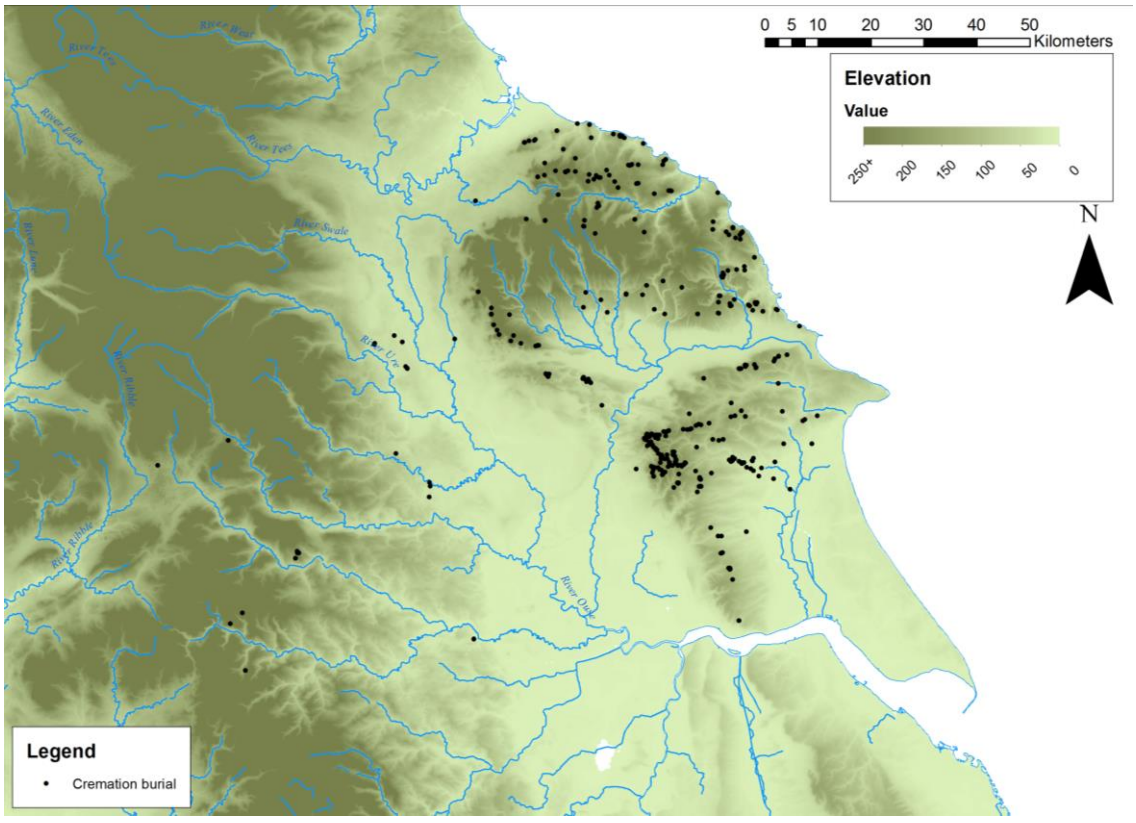

Figure 4.32: Distribution of cremation burials

The numbers of round barrows with different treatments of human remains are plotted and divided into three categories: inhumation burials only, cremation burials only, and sites where both kinds of treatment of the dead occur in Figure 4.30. There is a strong preference for cremation only barrows, followed by inhumation only barrows and finally, a combination of the two.

Sites with inhumation burials (Figure 4.31) are distributed in concentrations around the north-western escarpment, as well as clusters south of the River Hertford, and north-west of the River Hull, and the river valleys of the Cleveland Hills. There are individual sites across western Yorkshire in the Ure-Swale interfluve, north of the Nidd, and few along the coast north of the Esk.

Cremation burials are much more common (Figure 4.32). The north-west escarpment along the Wolds is heavily populated. North of the Esk, the north-east coast, and the Hambleton and Howardian Hills are densely concentrated by barrows that contain cremations. These concentrations overlap on the north-western escarpment of the Wolds. There are clusters of sites north-west of the River Hull in the Wolds and the river valleys in the Cleveland Hills and the north-east coast. Like barrows with solely cremation burials, sites with inhumations and cremation burials are found much further south than sites with only inhumations.

The distributions of cut-graves and cist burials have been mapped below. Regarding cut-graves (Figure 4.33), there is a definite concentration in the Yorkshire Wolds along the north-western escarpment and north of the Gypsey Race overlooking the Vale of Pickering. There is a definite trend for cists in the North Yorkshire Moors (Figure 4.34), particularly north of the Esk, along the north-east coast, and the Hertford. Similar to cut graves, there are a few sites in the Ure-Swale interfluve, south of the Nidd and the Aire, as well as further west in the Pennines. There are only a few examples of Bronze Age wooden coffins in the region with an even spread throughout the Wolds, the North Yorkshire Moors, and two examples in the Ure-Swale interfluve and the northern Pennines.

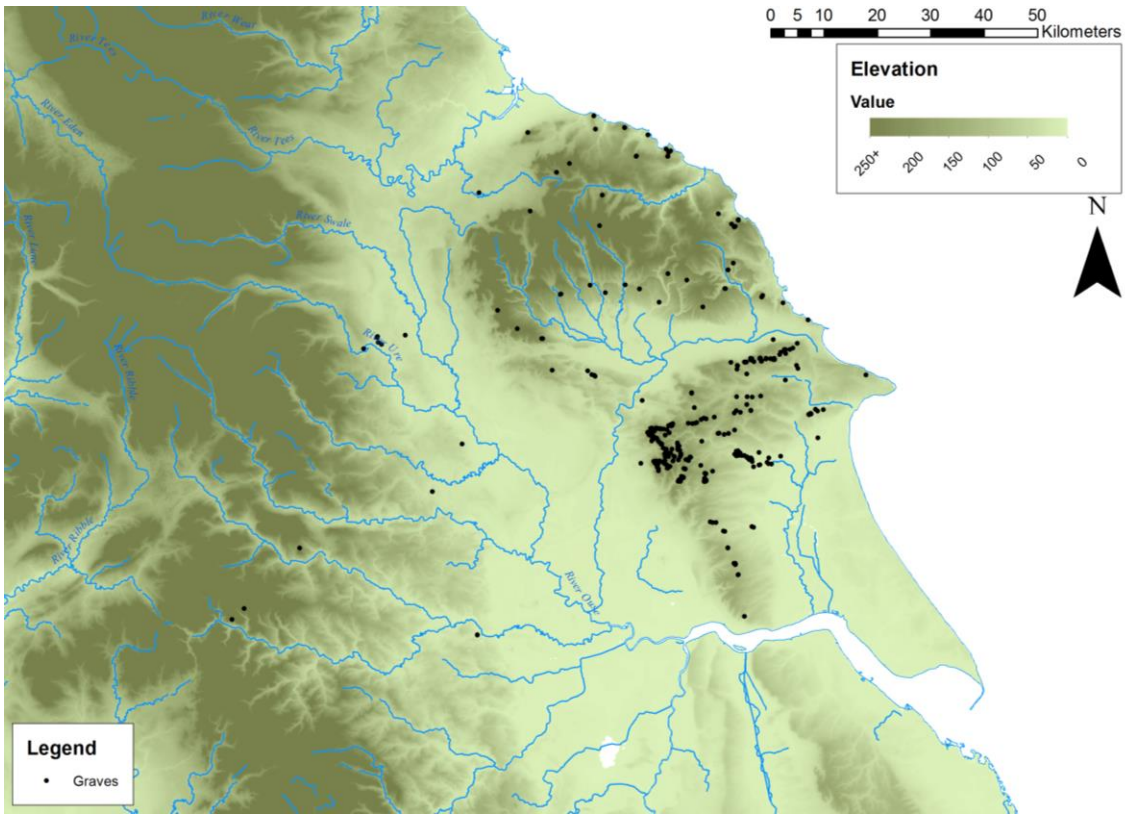

Figure 4.33: Distribution of graves

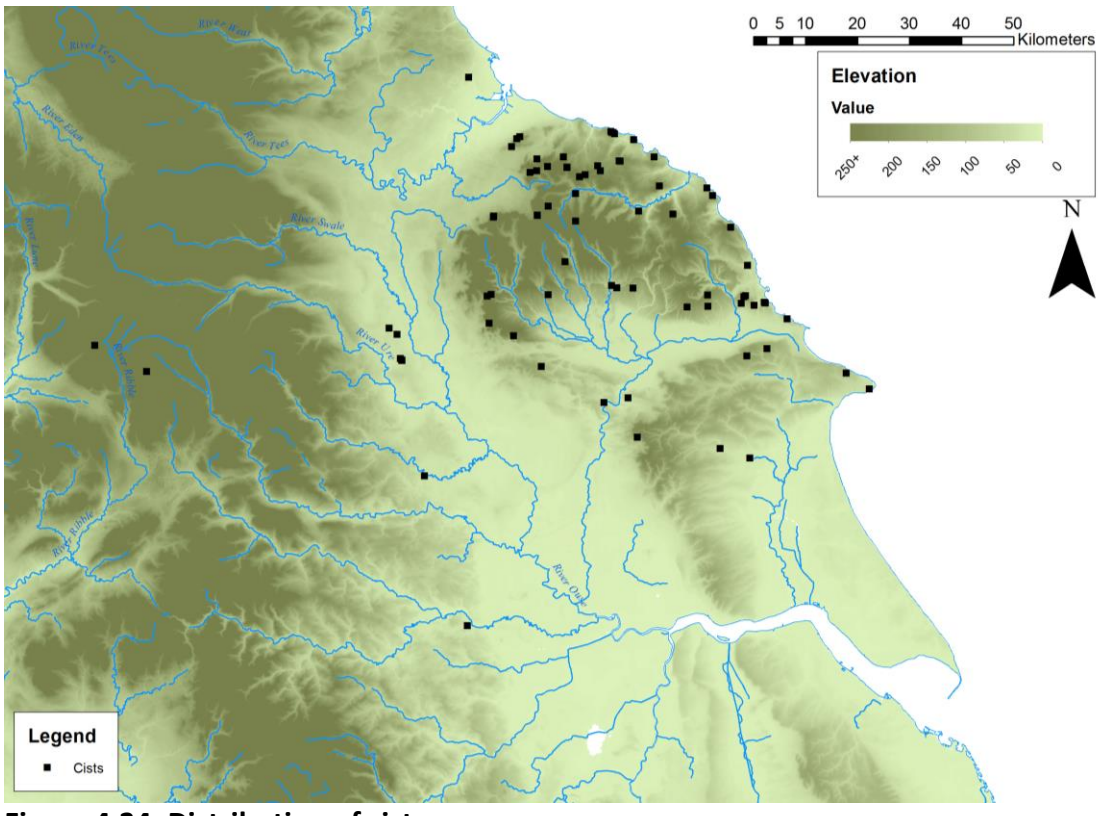

Figure 4.34: Distribution of cists

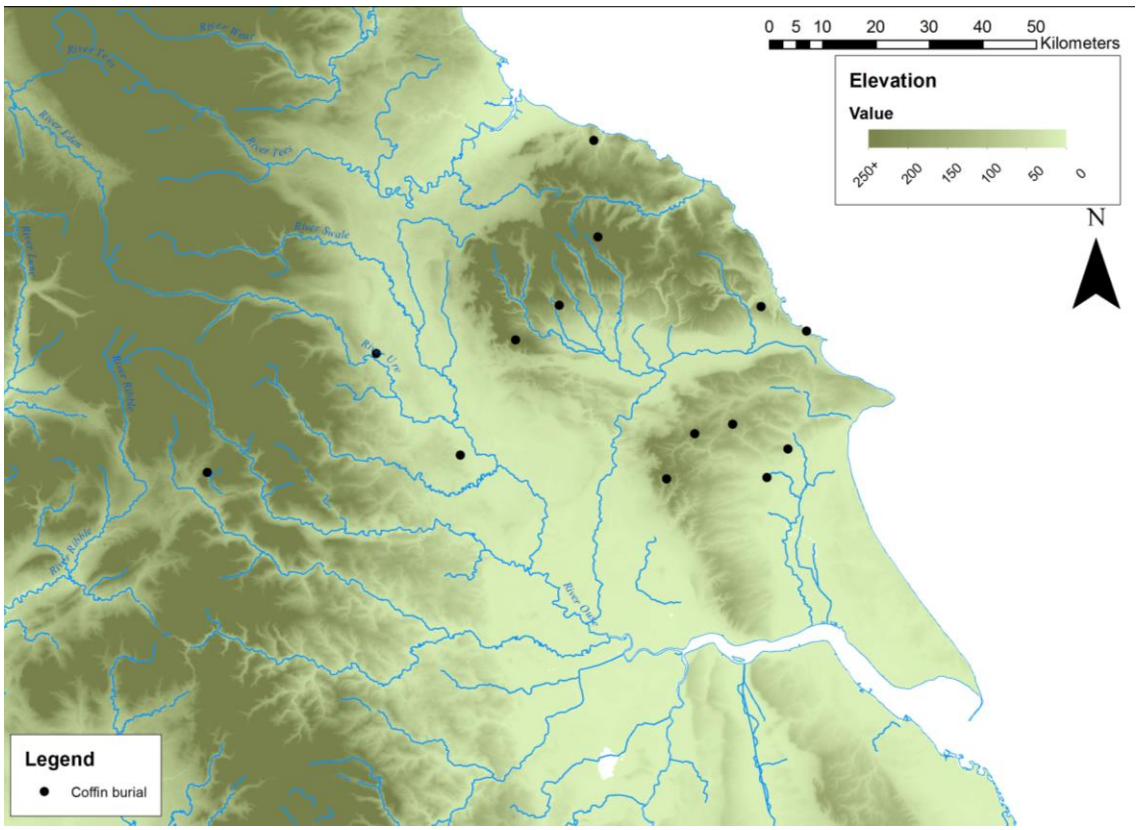

Figure 4.35: Distribution of wooden coffins

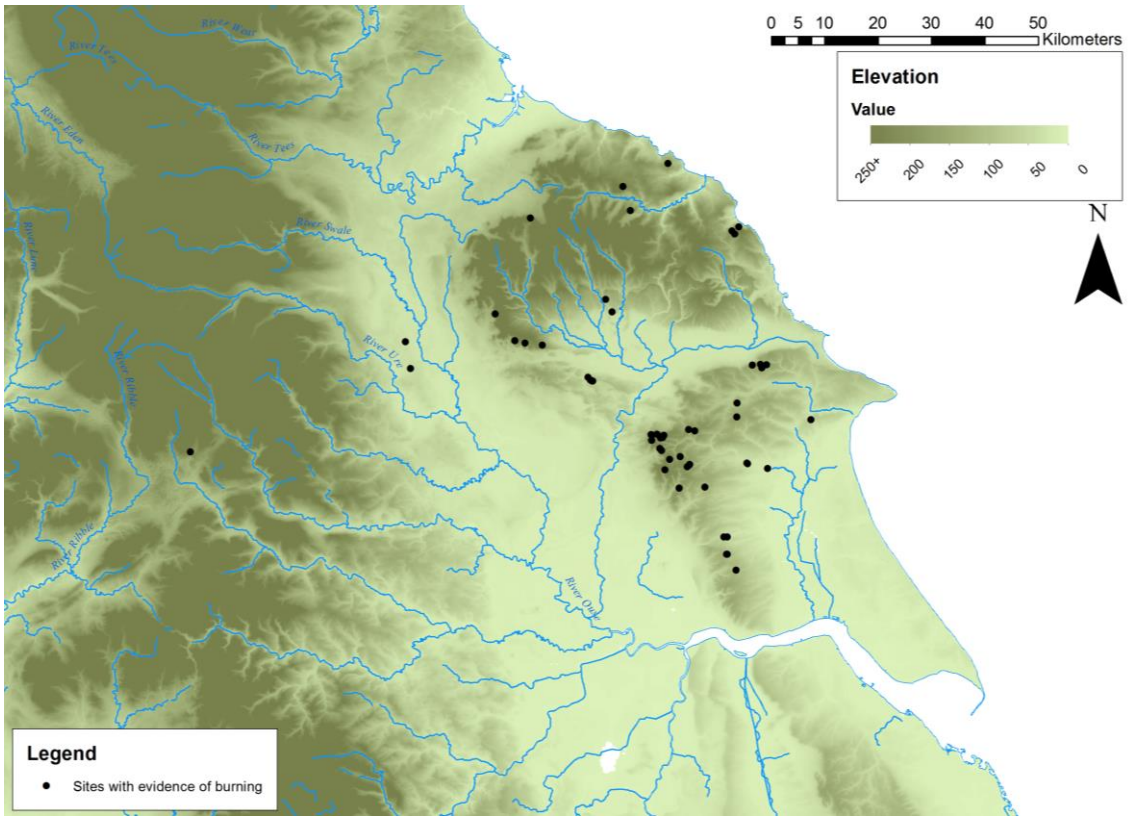

Figure 4.36: Distribution of sites with evidence of burning

Evidence of burning within round barrows is recorded in a number of excavations (Figure 4.36). These are situated on key rises in the landscape. The sites around Robin Hoods Bay overlook the North Sea, the Hambleton Hills overlooking the Vale of Mowbray, and the escarpment overlooks both the Vales of Pickering and York.

Burning is most common beneath earthen mounds and composite mounds. Pyres only occur beneath earth and composite mounds despite the strong association of burning and cremation with cairns. Pyres occur on locations of higher visibility than those of burning. These sites occur on the edge of vales such as Holderness, Pickering and York in the case of sites on the Wolds. Those examples near to the North Yorkshire Moors occur on the Cleveland Hills and overlooking the North Sea. These examples are predominantly earthen with only three composite barrows featuring pyres.

4.6. Conclusion

This chapter has explored the various facets of round barrows across Yorkshire through distribution mapping, statistical analysis, and simple tabulation of data collected across almost two and a half thousand sites. The role of architecture, the artefacts, and the burial of the dead was explored and the findings revealed that these monuments had certain common elements.

From the available data, the majority of round barrows in Yorkshire are comprised of earth either partly or as a whole. Cairn mounds are less common in the data than any other composition but are focused geographically on the North Yorkshire Moors and the Pennine uplands. The associated architecture of round barrows such as ring-ditches, kerbs, and stake circles are not directly connected to the composition of the barrow mound as described by Ashbee (1960). There might be a relationship between ring-ditches in the landscape and the construction of earthen burial mounds. The reverse is not necessarily true: ring-ditches do not necessarily require mounds to be present in the landscape. This indicates that many of the sites identified through aerial photography are not all round barrows and that this architectural tradition is not dependent on mound building. Exploring the general role of ring-ditches c. 2500-1500 BC is outside the scope of this thesis but it has implications for the role of kerbs and their relationship with burial mounds. Kerbs do appear to be connected closely to the

construction of cairns and composite burial mounds either. There are lower numbers of kerbs associated with round barrows in the dataset and this undermines the strength of the T-testing. The presence of both ring-ditches and kerbs in all forms of mound composition would indicate that it is a gross simplification to define the type of burial mound by the architectural features. This lends weight to the discussion of these architectural trends as modular elements in Chapter 2.

Barrows were constructed to suit their landscape: their size and composition are not always related and the materials comprising mounds were obtained from easily accessible sources. The size of a mound depends much more on the placement in the landscape with larger barrows in areas of the region that would have been more visible. This indicates that they were meant to be seen from a variety of angles as barrows on higher ground near the sea were also much larger than average. It is clear that there are some pan-European connections with Yorkshire round barrows with the influx of early Beaker styles. Regrettably the role of exchange networks and Bronze Age maritime traditions are important topics for discussion but would be outside the scope of this thesis. The influence of the sea and the relationship with these monuments is a significant one that could be explored in conjunction with Robert van de Noort's work on the Ferriby boats and the role of the North Sea during the Bronze Age (2003).

Collared Urns were the most ubiquitous pottery in the dataset but Food Vessels played the larger role in mortuary practices. This was represented by their geographical distribution where both Collared Urns and Food Vessels were widespread with examples recovered in the Pennines, the Vales of York and Mowbray. The main focus for Food Vessels was in the Wolds and the North Yorkshire Moors. Beakers appear to have almost exclusively concentrated in the eastern part of the county. Datable material for Yorkshire emerged with Weak-Carinated, Short-Necked, and the earliest Long-Necked Beakers, as well as Low-Bellied and High-Bellied S-Profile Beakers in the North Yorkshire Moors and the Wolds dating c. 2300/2200 BC. Food Vessels and later Beakers (later Long-Necked, Globular, and Mid-Bellied S-Profile) expanded across Yorkshire around c. 2100/2000 BC. The apex of mortuary practice associated with

round barrows in the county would be situated c.2150-1750 BC. This corroborates the data emerging from southern Britain (Garwood, 2007). This apex period is also supported by bronze flat-riveted daggers associated with burials dating to c. 2200-1900 BC (Sheridan, 2007). These are located in eastern Yorkshire focusing on the Wolds. While the later knife-dagger types (c.1900-1600 BC) were situated in barrows on the North Yorkshire Moors. The usage and deposition of jet objects was similarly focused on the eastern uplands of Yorkshire that Sheridan and Davis (2002) dated to c. 2200-1800 BC. In contrast with jet and metalwork, bone objects have a much wider distribution in western Yorkshire in the Vales of Mowbray and the Pennine uplands. Unfortunately there are no strong typologies for these artefacts.

There is a strong presence of cremation burial in the data which comprises the majority of treatment of remains in Yorkshire round barrows. The separation between the two practices is interesting. There are very few round barrows that contain both inhumation and cremation burial in comparison with those that only contain one type of treatment. Evidence from elsewhere in Britain during the Early Bronze Age corroborates this practice as cremation became the increasingly dominant rite for mortuary practice from c. 2100 BC onwards (Garwood, 2007; Appleby, 2013). The separation between cremation and inhumation is investigated further in the following chapters. The presence of ancillary practices in the round barrows of Yorkshire such as coffins, cists and graves is less well-defined. The distribution is geographically focused. Cist burials tend towards the north and western uplands of Yorkshire and graves being favoured in the south and Wolds uplands. The distribution of coffins in Yorkshire is diffuse and it is difficult to draw any clear conclusions from this. Burning located in round barrow contexts is focused on areas where it would have had a visible impact. This is reminiscent of Field's contention that the round barrows of Kent were situated around watercourses and escarps (1998).

Chapter 5. Case study 1: the Upper Wold Valley

5.1. Introduction

The Wolds are the focus of most of the Early Bronze Age archaeological investigation in Yorkshire. This was reinforced in the previous chapter where the majority of the round barrows in the dataset were located in the North Yorkshire Moors and the Yorkshire Wolds. This chapter takes a holistic view of the round barrow monuments located in the Upper Wolds Valley along the course of the Gypsey Race. Contextualising the current research and establishing how these sites interacted over the course of the Early Bronze Age, this chapter addresses the Upper Wolds Valley because there are an equivalent number of excavated sites to the other case studies. The Wolds contribute a vast amount of sites to the overall dataset and covering the whole landscape is outside the remit of this thesis. The diversity of the Wolds is often neglected as a complex landscape despite the amount of research carried out there. The Upper Wolds Valley is a relatively contained area with barrows in groups distinct from other cemeteries in the Wolds. Recently the Neolithic round barrows in the Valley were examined by an English Heritage project (Gibson and Bayliss, 2010) that approached the sites, their artefacts, and burials in detail and obtained valuable radiocarbon dates for context.

Differences within the artefactual assemblages and burial mound structure indicate a substantial shift in the practices engaged in with these monuments c. 2000 BC. The diverse stratigraphy of these burial mounds indicate deliberate manipulation and transition between which sites were privileged in the landscape. Which round barrows were intended to be viewed from a distance in the Upper Wold Valley changed over the course of the period c. 2500-1500 BC.

The dataset for the river valley contains 69 round barrow sites shown in .There are two concentrations along the valley: the first lasts from Bridlington to the first bend in the river at Rudston and the second is grouped around the parish of Burton Fleming. Others are scattered along the river valley all the way to the river's source at Duggleby. There are 25 round barrow sites with associated excavation reports and 23 were carried out by either William Greenwell or John Mortimer.

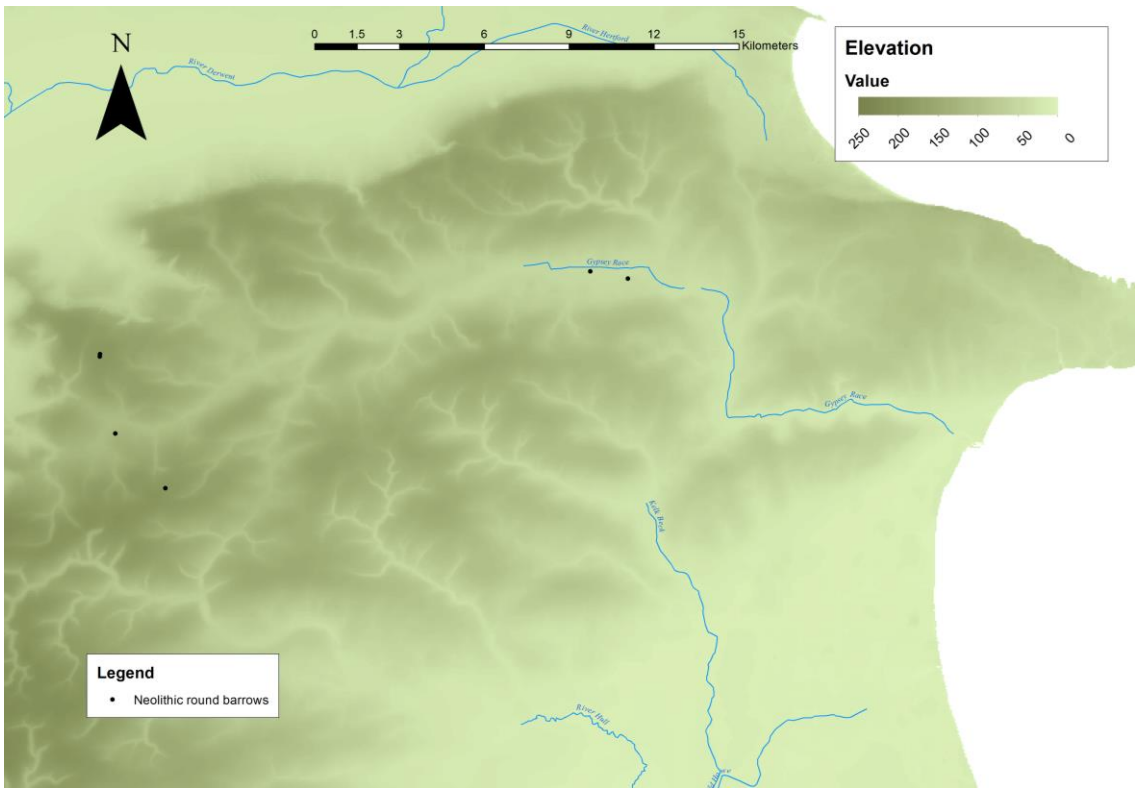

Figure 5.1: Distribution of Upper Wolds Valley Neolithic round barrows

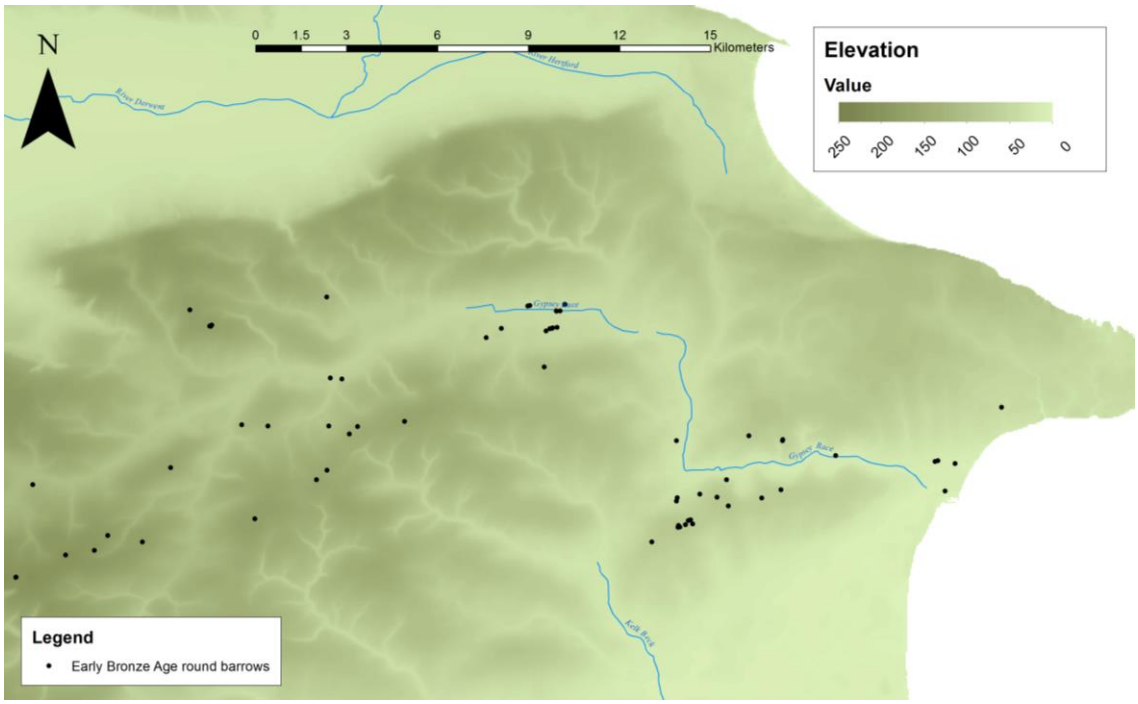

Figure 5.2: Distribution of Upper Wolds Valley Early Bronze Age round barrows

This chapter concentrates on the round barrows along the Gypsey Race in the Upper Wolds Valley. The landscape elevation reaches up to 250 metre OD overlooking the Vale of York to the west, the Vale of Pickering to the north, and the North Sea and lowland Holderness to the east. The Wolds themselves are rolling, uneven grassland,

stocked with a number of undulating dry valleys and prehistoric monuments that date from the earliest Neolithic to the Iron Age. Many of the round barrows around the Gypsey Race are some of the earliest in Britain relating to the Neolithic monument complexes at Rudston, Thwing, and Duggleby.

5.2. Geology and archaeological background

The collections, excavations, and writings of William Greenwell and John Mortimer were influential to their contemporaries (especially Greenwell), and subsequent archaeologists. Between 1850 and 1910, Greenwell and Mortimer opened the majority of the round barrows in the Upper Wold Valley as well as many others across the rest of the Yorkshire Wolds. In the 20th Century, only two new barrows were examined, the first: Willie Howe was examined in 1967 by Brewster and Finney (unpublished), and the second was a ring-ditch with a burial (Abramson, 1996) revealed in 1992 as part of excavations in advance of a natural gas pipeline. Two of Greenwell's barrows were re-excavated: Greenwell 47 was examined between 1966 and 1968 (Brewster and Finney, unpublished), and Greenwell 62 was re-excavated in 1960 and 1968 (Manby, 1970; Pacitto, 1972). No new excavation work has been carried out or published on Early Bronze Age round barrows in the Upper Wold Valley at the time of writing but in 2006, a team led by Alex Gibson carried out a survey of the Neolithic round mounds along the Gypsey Race. They performed a battery of analyses including an osteoarchaeological study of remains recovered from excavations by Greenwell, Mortimer, and Brewster, geophysical and topographical studies, and obtained radiocarbon dates for many sites (Gibson and Bayliss, 2010). Whitaker examined the osteological material from a wide range of sites from around the Wolds including barrows from Rudston, Burton Fleming, and elsewhere along the Gypsey Race (2011). Walsh (2013) carried out osteological analysis on a number of remains from round barrows from the Gypsey Race, including Esh's Round Barrow.

In terms of geology, the Yorkshire Wolds are more straightforward than the other case study areas in this thesis. There is no drift geology because the surface soil lies directly on the chalk bedrock. The exception to this is the river valley of the Gypsey Race. This has two beds of secondary geology: the first to the east is a combination of silt, sand,

and clay, while the second – upriver - is a sand and gravel mixture. Both Holderness and the Vale of Pickering have drift geology primarily till, clay, and deposits of sand and gravel, and silt, sand, and clay beds (Figure 5.2).

Figure 5.3: Northeast view of arable farmland in the Upper Wolds Valley

Figure 5.4: North facing view towards Rudston

The Wolds have been compared to the Wessex chalklands; they are both littered with valleys that give the area a combination of enclosed lowland spaces and upland vistas (as shown in . The Wolds differ with ‘slacks’: dry valleys that had watercourses flowing through them at some point in the distant geological past. Many of these once fed into the Gypsey Race. There are virtually no major flowing watercourses running through the Yorkshire Wolds in the present. The landscape is hydrated by geological springs from the chalk aquifer. The Gypsey Race is fed by a combination of three freshwater springs in Duggleby. These ensure a fertile soil and so the land is farmed extensively. Modern agricultural techniques such as mechanical deep-ploughing affect the surface soil but scar the chalk bedrock. This causes the destruction of archaeological remains recorded by Greenwell (1877), Mortimer (1905), and most recently the 2013 Sites and Monuments at Risk register (Heritage at Risk Priority Sites, 2013).

The Wolds have seen continuous human activity since the Mesolithic period. They feature monumental archaeology such as Neolithic cursus monuments, standing stones, and henges focused on the parishes of Rudston and Burton Fleming. These include the Yorkshire Great Barrows, long barrows, and round barrows constructed prior to 2500 BC. After the Early Bronze Age, interaction with the round barrows is a recurring theme especially during the Iron Age and the Anglo Saxon periods (Semple, 2013). This adaptation and re-use continued for centuries after they were constructed. In modern times round barrows continued to be used by farmers for burying diseased livestock or family pets.

The re-use and integration of existing landscape features is a continuing theme in the archaeology of the Wolds. Round barrows constructed during the Early Bronze Age were incorporated into the existing Neolithic landscape. The monument complex in the parishes of Rudston and Burton Fleming is focused around the dog-leg in the river and features six cursus monuments: Woldgate (A), Rudston House (B), High Street (C), Gypsey Race (D), Little Cursus, and Burton Fleming (these latter not pictured in Figure 5.5: The Rudston cursus complex (Chapman, 2003)Figure 5.5).

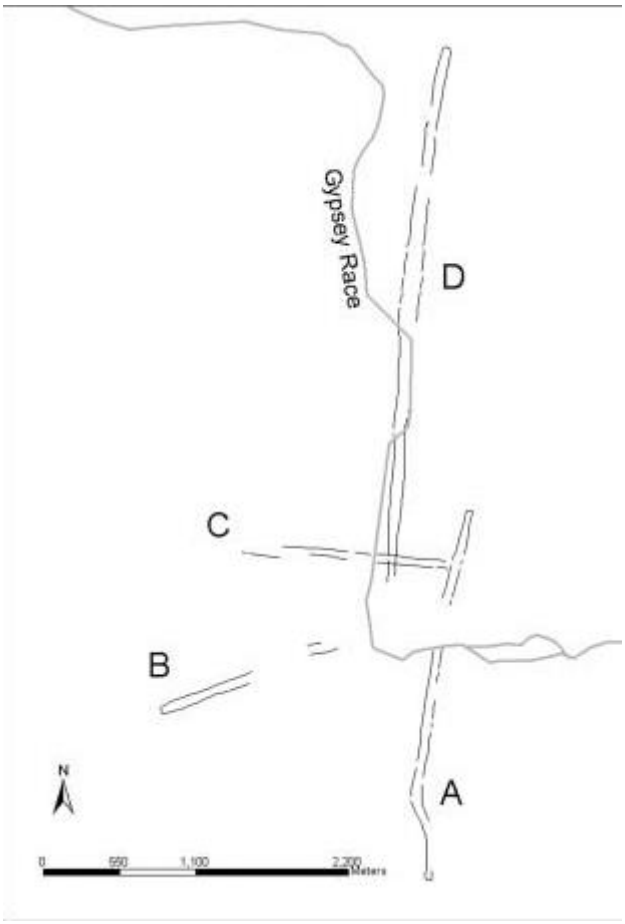

Figure 5.5: The Rudston cursus complex (Chapman, 2003)

A standing stone was positioned at the centre, a henge lies to the north of the Gypsey Race cursus, and three of the Great Barrows are found nearby too: South Side Mount Barrow, Wold Newton, and Willy Howe. There are two long barrows just to the east of the river.

Woldgate starts the furthest south of the complex as it crosses the river after the Gypsey Race turns east once again. It extends as far north as the village of Rudston. It was first examined by Greenwell when he excavated its southern terminal as a long barrow (Greenwell 66). The site contained two Chalcolithic Beaker burials near to the surface (a Short-Necked vessel and a later series Long-Necked vessel) beneath which were Neolithic disarticulated inhumations (Greenwell, 1877). In the 20th Century, archaeologists explored the remainder of the cursus. A survey carried out by the Granthams sectioned the ditch of the Greenwell 66 barrow (Kinnes and Longworth, 1985). A more complete investigation by Dymond (1966) examined the Woldgate cursus revealing that the monument continued much further north than had been

previously supposed. Aerial survey increased understanding of the original length of the monument. Firstly by St. Joseph (1964) during aerial survey of the region and more recently the analysis and transcription carried out by the Royal Commission for Historical Monuments of England expanded the Woldgate cursus further and discovered a small ring-ditch within the site (Stoertz, 1997). More recently, archaeological survey and excavation carried out as part of the assessment ahead of the construction of the Caythorpe gas pipeline (which discovered Round Barrow 500 in our dataset), revealed even more of the monument's northern extent (Abramson, 1996). Chapman (2003) used GIS to examine the Woldgate cursus topographically using a digital elevation model (DEM). Using cost-surface analysis and intervisibility models, Chapman concluded that the monument was constructed to provide a visual connection between two sites along the Gypsey Race: the Rudston long barrow and the Denby long barrow (2003). The Woldgate cursus is the most extensively examined of the alignment but other monuments bound the river valley at multiple points and form the core of the complex centred on what is now the village of Rudston. These monuments converged but the later development of the village obscured the ends of the Gypsey Race and the Rudston House cursus monuments.

The Ruston monolith highlights this significance and lends credence to Rudston village lying at the centre of a prehistoric monument complex. Constructed of sandstone and approximately 8 metres high, it is the largest standing stone in Britain. It would have been a significant task to move and set it in its current position. Elgee and Elgee (1933) noted the presence of possible cup and ring marks tentatively dating the monolith to the Early Bronze Age period. Given the difficulty of identifying and dating standing stones, this is precarious.

Figure 5.6: The Rudston Monolith with the church for scale

Figure 5.7: The Rudston monolith

Another Late Neolithic monument is the Maiden's Graves henge that lies to the north of the Gypsey Race cursus. First identified by St. Joseph (1964) during aerial survey, the site was excavated by MacInnes which recovered Peterborough ware and Beaker sherds revealing that the monument had seen use from the Late Neolithic onward

(1964). Later pottery dating from the Romano British period was recovered from subsequent layers of silting above this earlier material indicating that this site continued to be used sporadically. Proposed re-excavation was cancelled as deep-ploughing reduced the site too much for worthwhile examination.

The Gypsey Race is rich in Neolithic long and round barrows. These include the Great Barrows: large round mounds that are much bigger than the other round barrows. Greenwell 224, also known as Rudston Long Barrow (1877, p. 497-501) contained evidence of cremation as well as the typical disarticulated Neolithic inhumations on the prehistoric ground level. Two of the Neolithic round barrow sites near the complex; Wold Newton (Mortimer 284) (1905, p. 350-352), and Willy Howe (Greenwell 252) (1877, p. 22-24), were re-examined by Gibson and Bayliss (2010). Wold Newton was Neolithic in its burial practices: disarticulated inhumations of both humans and animals were found at the centre of the barrow associated with sherds of Neolithic pottery and worked flint. The mound was composite with a core of peat capped over by chalk gravel. Cremated remains were inserted in the later phase. Radiocarbon dating confirmed that the earliest inhumation died c. 3800-3700 BC and the last remains were buried c. 3500 BC (Gibson and Bayliss, 2010). Willy Howe was less well recorded because it had been opened previously by Lord Londesborough in 1857 before excavation by Greenwell in 1887. The composition was very similar to Wold Newton: made of both chalk and earth. Unlike Wold Newton, there were very few finds recorded in the barrow and no human remains were recovered. Animal bone and flint objects were found by Greenwell but they did not survive to the present.

These sites are the Neolithic barrows nearest to the Rudston-Burton Fleming monument complex. There were many round mounds recorded along the Gypsey Race – Greenwell 3 (Mortimer 291) (Greenwell and Rolleston, 1877, p. 140-141; Mortimer and Sheppard, 1905, p. 42-43), and Mortimer 292 (1905, p. 42-43) are similar to Willy Howe and Wold Newton. These are composite barrows where the initial mound was made of a combination of chalk and clay, capped over by surrounding soil and burnt material. The burials in both the barrows were inhumations accompanied by flint and small sherds of pottery rather than the cremations that might be expected in that

period in Yorkshire. Mortimer 18 (1905, p. 9-11) was begun in the Neolithic with additions made to it later on as confirmed by radiocarbon dating of secondary burials (Gibson and Bayliss, 2010). This is very similar to Greenwell 66 at the southern terminal of the Woldgate cursus. The role of these sites is addressed further in this chapter.

At the source of the Gypsey Race is the barrow of Duggleby Howe. Excavated by Mortimer over six weeks in 1890, it is one of the most detailed 19th Century excavations of a Neolithic round barrow and was re-examined repeatedly (Kinnes et al., 1983; Loveday, 2002; Gibson and Bayliss, 2009). The site has a fascinating stratigraphy punctuated by multiple burials. The ground surface beneath the barrow contained an initial articulated inhumation placed within the main central grave into which three further inhumations and an additional skull were added. It appears that three additional inhumations were later placed over or into the initial fill. When the initial barrow was erected, it incorporated the inhumations of six infants, a juvenile and an adult. Another layer was added to the mound and fifty-three cremations were incorporated into the final layer of the barrow. The wealth of the material available and the clear sequence of activity in the barrow has been without clear context until recently. Gibson and Bayliss established that the initial burial at Duggleby Howe had been interred c. 3500-3400 BC with another burial and the skull in the central grave. One of the burials in the later phases of the burial mound was placed in c. 2600-2500 BC (2009, p. 71-73). The site was in use sporadically over the course of a millennium and Burial M, a crouched inhumation of a young male without any accompanying artefacts, died c. 2290-2030 BC, was the last burial of the barrow inserted into the upper layers (2009, p. 64-65). Duggleby Howe, Mortimer 18 and Greenwell 66 demonstrate that the relationship between the Neolithic monuments and the burial practices of the Early Bronze Age along the Gypsey Race is closely related.

5.3. Round barrow mound composition and architecture

This section addresses the role of burial mound material composition and structural features within the round barrows in the Upper Wold Valley and their relationship to the sequence of burial mound construction and development. Figure 5.8 shows the basic compositions of the Upper Wold Valley round barrows. The pattern is similar to

that of the rest of Yorkshire. Earth burial mounds form the majority accounting for their broad distribution. Composite round barrows are well represented but there is only one recorded
cairn.

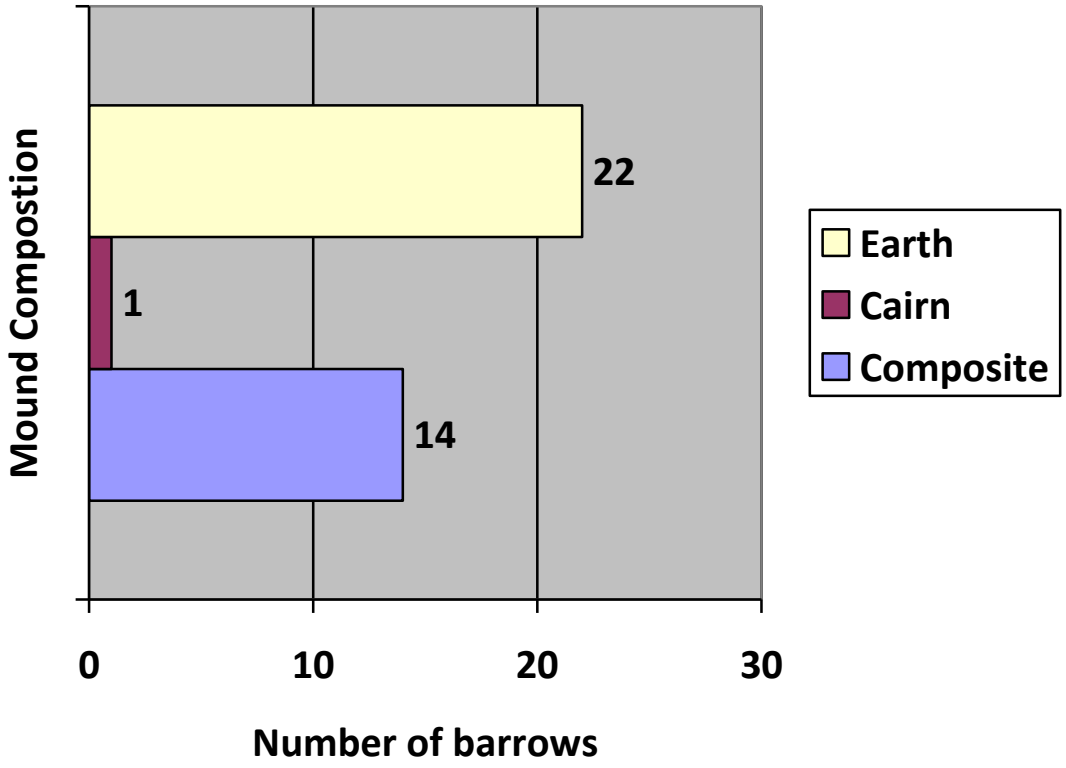

Figure 5.8: Burial mound compositions in the Upper Wold Valley

Examining the geographical distribution of the categories of mound material, there is a pattern in Figure 5.9. Earthen mounds are distributed into four main clusters along the Gypsey Race. By contrast, composite barrows are located in two main clusters, one of which includes a solitary cairn. One cluster is located at the southern point of the Rudston-Burton Fleming monument complex and the other is in a triangle further west. The data for both Figure 5.8 and Figure 5.9 are based on surveying carried out on all the round barrows in the Upper Wold Valley including unexcavated round barrows (i.e. those sites where erosion revealed the composition of the mound but not ring-ditches detected by aerial survey). It is uncertain whether these are representative of the sub-surface construction of all of these mounds. A closer examination of the round barrow mound structures of excavated sites is necessary.

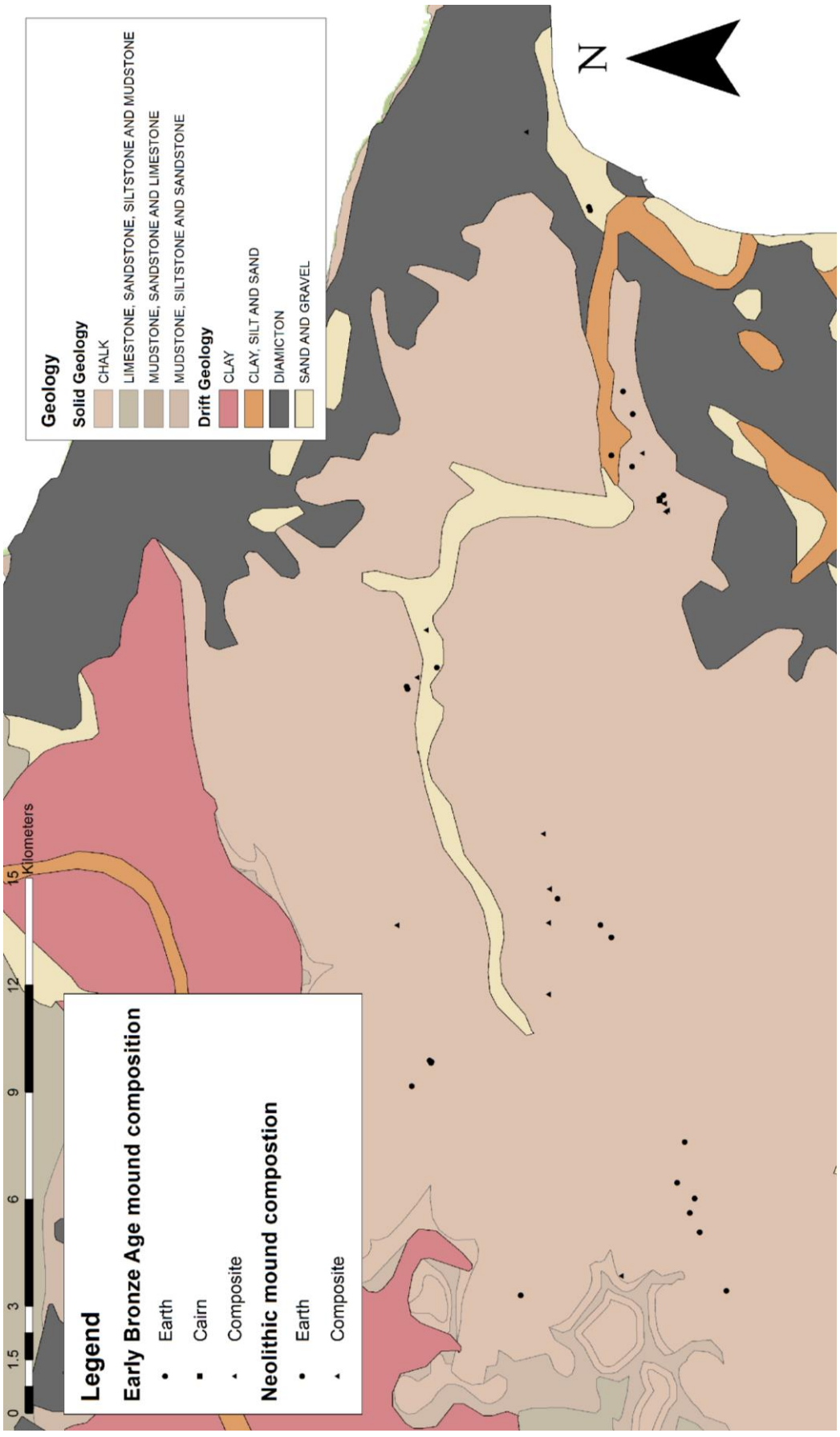

Figure 5.9: Composition of Upper Wolds Valley round barrows over local geology

Barrow	Reference	Mound composition
Greenwell 39	Greenwell 1877	Earth with a wall of stones running ESE-WNW
Greenwell 42	Greenwell 1877	Earth with some chalk
Greenwell 43	Greenwell 1877	Earth with some chalk
Greenwell 44	Greenwell 1877	Earth and chalk rubble
Greenwell 47	Greenwell 1877	Chalk, capped by earth
Esh's Round Barrow	Greenwell 1877	Earth and chalk, reduced by ploughing
Greenwell 57	Greenwell 1877	Earth, reduced by ploughing
Greenwell 60	Greenwell 1877	Earth
Greenwell 61	Greenwell 1877	Chalk rubble
Greenwell 62	Greenwell 1877	Earth, capped by chalk
Greenwell 63	Greenwell 1877	Two layers of earth and chalk based mounds
Greenwell 64	Greenwell 1877	Earth and chalk
Greenwell 65	Greenwell 1877	Chalk, capped by earth
South Side Mount Barrow	Greenwell 1877	'Dark fatty earth' amd evidence of burning
Greenwell 68	Greenwell 1877	Earth, capped by chalk
Greenwell 69	Greenwell 1877	Earth
Mortimer 7	Mortimer 1905	Earth (dark coloured)
Mortimer 18	Mortimer 1905	Kimmeridge clay
Mortimer 21	Mortimer 1905	Earth and dark clay
Mortimer 106	Mortimer 1905	Chalk, capped by earth
Mortimer 280	Mortimer 1905	Boulders and earth

Table 5.1: Detailed mound compositions in the Upper Wolds Valley

Table 5.1 shows the composition of round barrows that had mounds at excavations and were recorded in the subsequent reports. From the table, the most common materials used to build up burial mounds are chalk, earth, or a combination of the two. Considering the geology of the Wolds from Figure 5.9, it would appear that the most common practice was using the easily available material was to build the mound.

Another material in mound construction is clay that does not seem to occur locally to all sites. Clay is found on the eastern seaward river channel of the Gypsey Race in combination with silt and sand. There is another source of clay to be found to the north in the Vale of Pickering. This is part of the Kimmeridge clay bed that emerges near the Humber estuary and Dorset where it was first identified. It is a distinctive material derived from Jurassic geological beds and would have been unique amongst the Cretaceous chalk of the Wolds. This material was identified in Mortimer 18, a Neolithic round barrow with evidence of expansion during the Early Bronze Age. Mortimer proposed that the clay originated at Low Mowthorpe, between Duggleby and Kirby Grindalythe, 2½ kilometres from the location of Mortimer 18 (1905, p. 9 - 11). Mortimer 21 contained clay mixed with earth as part of the burial mound but Mortimer ascribed the origin of this material to one of the clay or sand pipes around the Wolds (1905, p. 12).

Expansion of burial mounds is very common in Yorkshire Wolds round barrows. Greenwell 47, 62, 63, 65, 68, and Mortimer 106 had more material added to them after the primary layer was built. At these sites, another material was added over the previous one: earth caps added to primary chalk mounds or vice versa. Given the quality of excavations by Greenwell, there could have been more expansion of round barrows than was discovered. Adding chalk to mark out monuments so they stand out in the landscape has been identified in other areas of Britain such as at Greenwell 62 and 68. At Greenwell 47, 63 and 65, as well as Mortimer 106, the opposite is the case – earth was deposited over these monuments obscuring the white chalk from view. At Greenwell 63, there are multiple layers of earth and chalk overlaying one another.

There are features observed beneath the mound. Greenwell 39 had a wall of stones running along the prehistoric ground surface ESE-WNW. The presence of internal ring-ditches indicate that some burial mounds were expanded while other barrows in the Wolds had evidence of activity beneath mounds such as stake-circles and post-holes. The majority of sites have only had external ring-ditches identified and recorded but there are a few examples of sites with internal ditches to the east (Figure 5.10). This includes sites where concentric ring-ditches have been observed in aerial surveys and

sites where an internal ring-ditch during excavation. These are focused around Rudston: one example is to the north in Burton Fleming and another with both internal and external ring-ditches lies on the river towards Bridlington. Developing these places remains important throughout the Early Bronze Age.

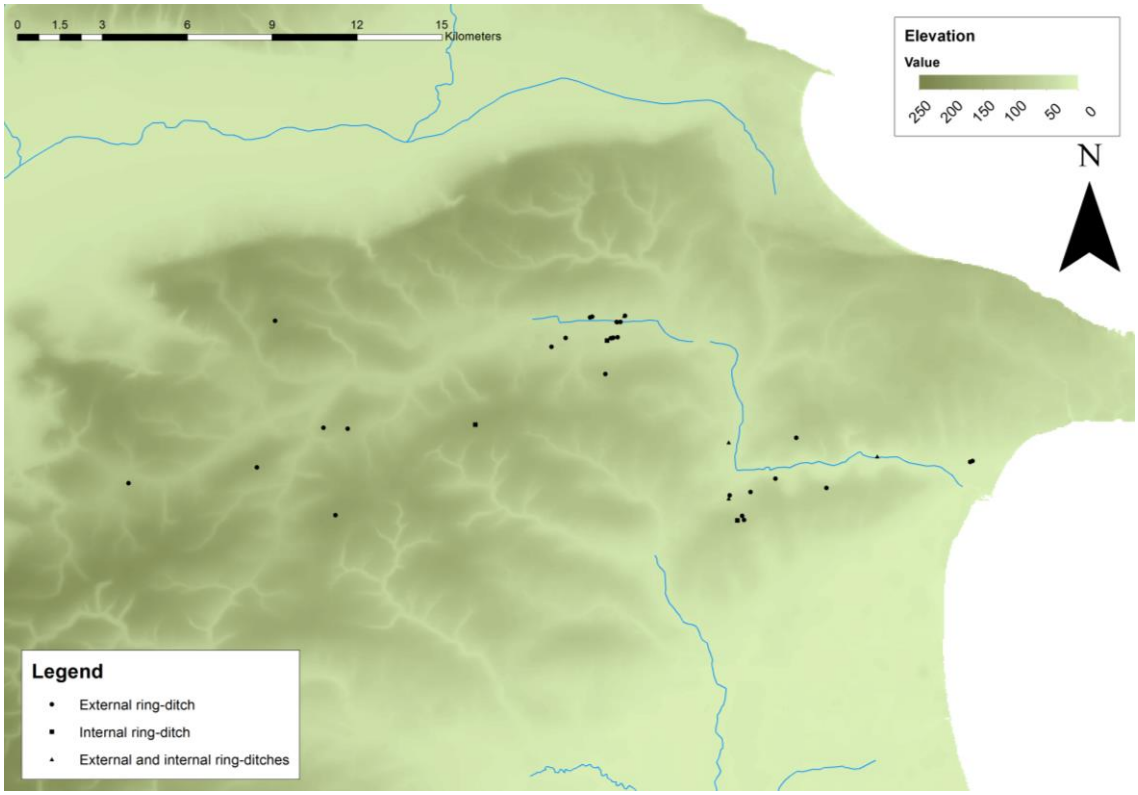

Figure 5.10: Distribution of Upper Wold ring-ditches

Greenwell 47 had evidence of postholes beneath the burial mound in an alignment of two concentric circles around the inner chalk mound at a diameter of 20 metres (65 feet). The lack of datable evidence associated with the burials at the barrow and the presence of early Beakers outside of the inner chalk mound would make this site Chalcolithic in origin. Stake circles remain popular throughout the Early Bronze Age but larger, more complex alignments such as the one at Greenwell 47 date to c. 2150-1850 BC (Garwood, 2007, p. 34-36). The presence of a hearth between the inner mound and the stake circle associated with a 'long necked' (which in Needham's typology is actually Weak Carinated – c. 2200-1900 BC) Beaker would corroborate this (Kinnes and Longworth, 1985, p. 48-50). Table 5.2 shows six round barrows with different material added to their mounds.

Barrow	Reference	Mound composition
Greenwell 47	Greenwell 1877	Chalk, capped by earth
Greenwell 62	Greenwell 1877	Earth, capped by chalk
Greenwell 63	Greenwell 1877	Two layers of earth and chalk based mounds
Greenwell 65	Greenwell 1877	Chalk, capped by earth
Greenwell 68	Greenwell 1877	Earth, capped by chalk
Mortimer 106	Mortimer 1905	Chalk, capped by earth

Table 5.2: Round barrow compositions featuring expansion

This could be evidence of the manipulation of older round barrows during the first half of the second millennium BC where Neolithic sites are amended then later covered. This could the case at Greenwell 65 and Mortimer 106, as well as Greenwell 47 where the emphasis in the landscape moved away from these sites to Greenwell 62 and 68.

Architecture and burial mound composition in the Upper Wold Valley utilises materials that are available in close proximity to the barrows. Materials such as clay that are less common are found in nearby sources. Brück (2004) proposes that constructing the mound is analogous to the relationships between the deceased in the barrow and their familial and physical surroundings. Brück uses Mortimer 137 as an example where the clay was sourced from Duggleby. This use of clay is found in Mortimer 18 and 21 that were also constructed with material from the same source. Brück neglects the role of timescale in the construction of round barrows. There is a change in the relationships of these round barrows but no evidence to suggest that these round barrow monuments were being constructed on the short timescale that Brück is suggesting. Barrow mound material and their sources could relate to groups within the Upper Wolds Valley landscape associating or disassociating with monuments. There is a transition from emphasising monuments in the landscape such as Greenwell 65 and 106 to favouring round barrows such as Greenwell 62 and 68.

5.4. Artefact distribution

The Upper Wolds Valley has a much wider range of artefacts in burials than other parts of Yorkshire with various ceramics, metalwork, jet, and bone implements. There are a variety of pottery types recovered from the Gypsey Race valley in Figure 5.11. The

most common Early Bronze Age pottery is Beaker ware (present in 13 barrows), followed by Food Vessels (9), then Collared Urns (2), and Accessory Cups (1).

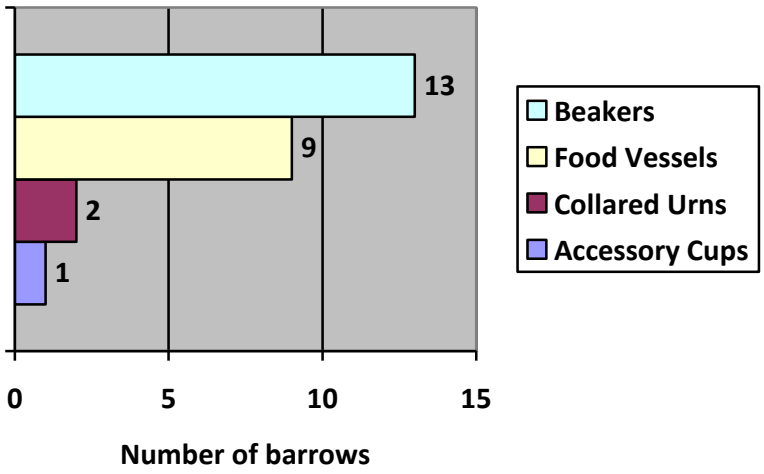

Figure 5.11: Pottery types found in Upper Wolds Valley round barrows

The range for Beakers in Britain begins from the middle of the third millennium through to the second-quarter of the second millennium BC which overlaps the beginning of Food Vessel usage. Greater resolution is needed for the dates for round barrows along the Gypsey Race.

	Ground Surface			Mound		
	Beakers	Food Vessels	Other	Beakers	Food Vessels	Other
Greenwell 42	GSP					
Greenwell 43		FVV			FVV FVB	
Greenwell 60				LBSP		
Greenwell 61	MSP					
Greenwell 62	WC SN MSP x 2 GSP	FVV				
Greenwell 63	WC				FVV	
South Side Mount				TMC WC	FVV x 2 FVB x 2	
Greenwell 69					FVV	
Mortimer 18		FVV				AC
Mortimer 21	LN1	FVV				
Mortimer 280		FVV				
Mortimer 297	MSP				FVV	
Willie Howe	LN1					

Table 5.3: Pottery associated with burials in round barrows

Table 5.3 identifies the pottery vessels associated with burials in round barrows in more detail. There are varieties of different types of Beaker and Food Vessels across the river valley and that they are not uniform in their distribution within barrows. However, we can see that the pottery from before each mound is established is quite diverse in its range. The Beakers range from the earlier Carinated types, to earlier and later Necked traditions through to the later S-Profile varieties. There is little pattern to where in a barrow these vessel types appear. For example, at the prehistoric ground-level of Greenwell 62 all three main Beaker variations are represented. In other round barrows such as South Side Mount Barrow, earlier traditions such as Carinated wares are as likely to be found later in the stratigraphic sequence of burial mounds as later traditions such as S-Profile Beakers in other sites.

Breaking down the ranges for the sites in Table 5.3, there are Weak-Carinated (WC) Beakers (c. 2200-1900 BC) beneath the mounds in Greenwell 62 and 63. In addition, Greenwell 62 contains a Short-Necked vessel (SN) (c. 2250-1950 BC). In South Side Mount Barrow's mound, there is another WC vessel as well as a Tall Mid-Carinated (TMC) Beaker, which date from c. 2200-2000 BC. In Mortimer 21 and Willie Howe, there are early series Long-Necked (LN) Beakers beneath the mound that would date to c. 2200-2050 BC. In South Side Mount Barrow, two Beaker burials are added to an existing site that is then mounded over and at Greenwell 60, an early S-Profile type (Low-Bellied) (LBSP) Beaker was added to the mound (c. 2250-2050 BC). With the influx of S-Profile Beakers and Food Vessels, we see more burial sites being initiated; Greenwell 42 with its Globular S-Profile (GSP) vessel (c. 2050-1850 BC), Greenwell 61 and Mortimer 297 have Mid-Bellied S-Profile (MSP) burials (c. 1950-1700 BC), while Greenwell 62 has both of these vessel types added to the existing burials at the ground level. Food Vessel Vases (FVV) also make their appearance c. 2100-1700 BC and these are found in the initial burials of Greenwell 43 and 62, as well as Mortimer 18, 21, and 280. There are burials with these vessel types added to existing sites such as Greenwell 63 and 69, as well as the appearance of Food Vessel Bowls (FVB) (c. 2150-1900 BC) in South Side Mount Barrow and Greenwell 43. Mortimer 18 sees the addition of an Accessory Cup (AC) in the mound but given their broad date range (c. 2000-1500 BC)

they confirm earlier initial Food Vessel burial. It could also signify a continued interest in that particular site through to c. 1500 BC.

There is an increase in activity in the final quarter of the third millennium BC where Greenwell 62 and 63, Mortimer 21, and Wille Howe have initial burials with Beakers that date to that period. Many of these sites see use through to the beginning of the second millennium BC. The sequences of Greenwell 42, 43, 60, 61, 69, and Mortimer 18 and 280 begin in this period. While Greenwell 62, 63, South Side Mount Barrow, and Mortimer 21 see continued burials with these newer pottery vessels. There is very little engagement with these sites in the second-quarter of the second millennium. There are no Collared Urns associated with human remains and a lone Accessory Cup in the dataset that could have been placed at any time between c. 2000 and 1500 BC.

While pottery is extremely useful for relative dating, there are other artefact types that are present along the Gypsey Race. Metalwork is found in many sites in the Wolds and along the river valley in particular. There is also a significant presence of worked jet and bone objects. Figure 5.12 shows the relative presence of objects in round barrows in comparison to their association in burials. Beaker vessels have a much larger presence in burial mounds compared to other object types. All of these types are much more likely to be found in association with burials.

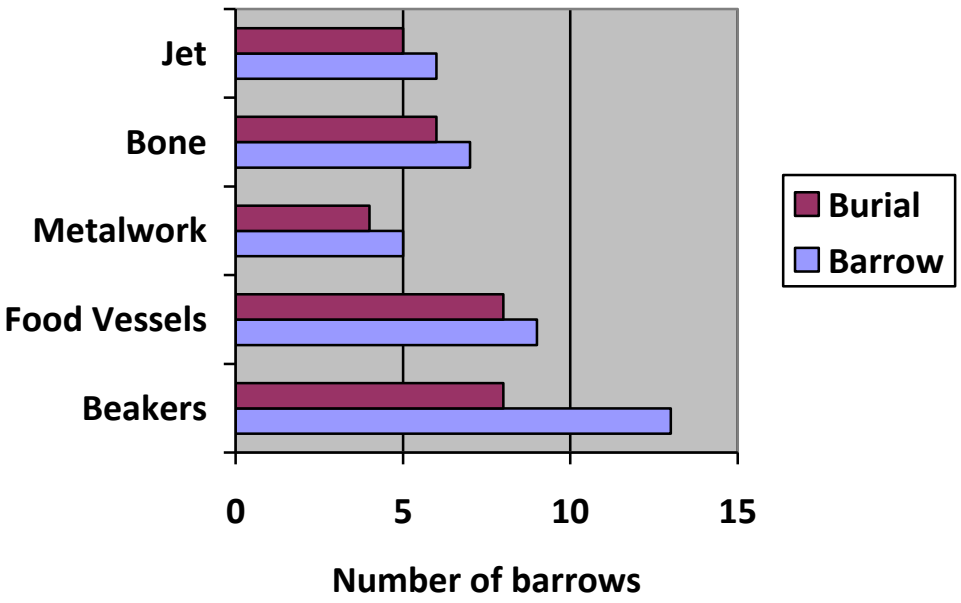

Figure 5.12: Artefact finds in barrows in relation to burials in the Upper Wolds Valley

Objects made of metal, bone, and jet, as well as later Food Vessels, are less likely to be found outside of a burial context within a barrow than Beakers. This could be the result of these smaller items being less likely to be identified outside of grave assemblages due to antiquarian excavation practices. The re-excavation of Greenwell 47 and 62 recovered flints from workings and other pottery from earlier periods. The prevalence of Beaker vessels could be explained by their ubiquity in the Wolds. Daggers, bone pins, and jet buttons were less common or less likely to be placed near to burial contexts. It is interesting that deeply personal items such as weapons and personal adornments are less likely to be deposited in mounding material.

Round Barrow	Metalwork	Bone	Jet
Greenwell 39	Migdale Axe Butterwick Dagger Thomas 1B Awl		Button
Greenwell 44		Pin	Necklace
Esh's Round Barrow	Masterton Dagger	Dagger Handle Pin	
Greenwell 57	Armorico-British B Dagger Rivet	Antler Macehead Boar-tusk blade Pin	
Greenwell 61		Antler Pick Pin	
Greenwell 62	Awl		
Greenwell 63		Pin	Ring
Greenwell 64		Pin	
Greenwell 68	Butterwick Dagger 1A Razor-Knife		Buttons Ring
Dog Hill		Antler Pick	
Mortimer 280		Pin	
Willie Howe	Awl		Disc

Table 5.4: Other artefacts associated with burials in Upper Wold Valley

There are a variety of implements from round barrows including a small but significant number of metal items as well as worked bone and jet. In the case of the latter, these appear to be primarily adornment and personal items. The presence of jet suggests a relationship of some kind with the North Yorkshire Moors given the widespread use of jet items up and down northern Britain. Bone implements would be easy to obtain from food animals. The presence of picks in barrow graves could be the remnant of the original burial. Metal objects identified in the Gypsey Race barrows have a primarily

functional element to them: blades, awls, and a singular axe make up the metalwork items buried with the dead. These items are bronze alloy rather than copper indicating that these items date from c. 2200 BC onwards.

The majority of the artefacts straddle the turn of the second millennium BC with very few artefacts from after c. 1900 BC. There is a tighter focus towards the Chalcolithic end of the spectrum with a variety of earlier Beakers as part of the monument landscape. There is a secondary influx of objects relating to metalwork, later Beakers, and Food Vessel pottery. In contrast with the other artefact types in Figure 5.11, there is an abundance of Beaker pottery located in barrows in addition to those found in association with burials. The spread and the role of Beakers in Britain outside of mortuary contexts has been discussed by Gibson (2004a) and Bradley (2007). This secondary period appears to be much more controlled in terms of artefact deposition than the previous one. This pattern is in part borne out by the funerary treatment of the body – cremation is less common than inhumation in the Upper Wold Valley.

5.5. Burial practice and treatment of the dead

There are significantly more barrows with inhumations (26 sites), than cremations (10 sites), in the Upper Wold valley. Inhumation was the favoured practice before cremation burial became the more significant aspect of mortuary rites across Britain c. 2100 BC (see Chapter 2). Figure 5.13 does not distinguish between those sites that contain both inhumations and cremations as part of their sequence.

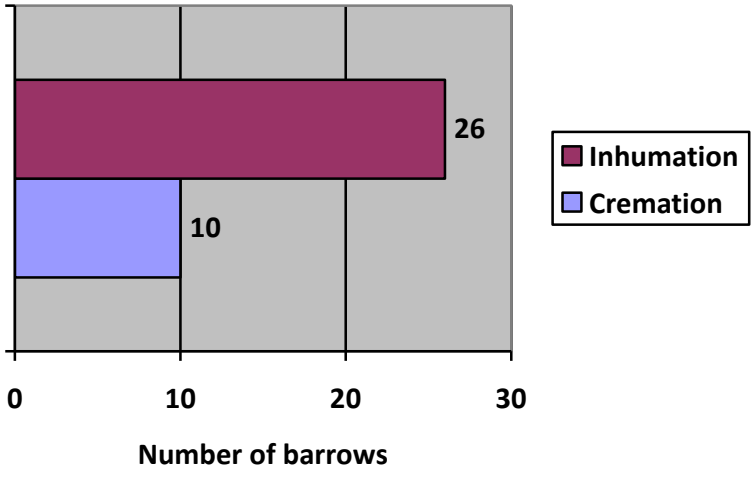

Figure 5.13: Inhumations and cremations by round barrows in the Upper Wold Valley

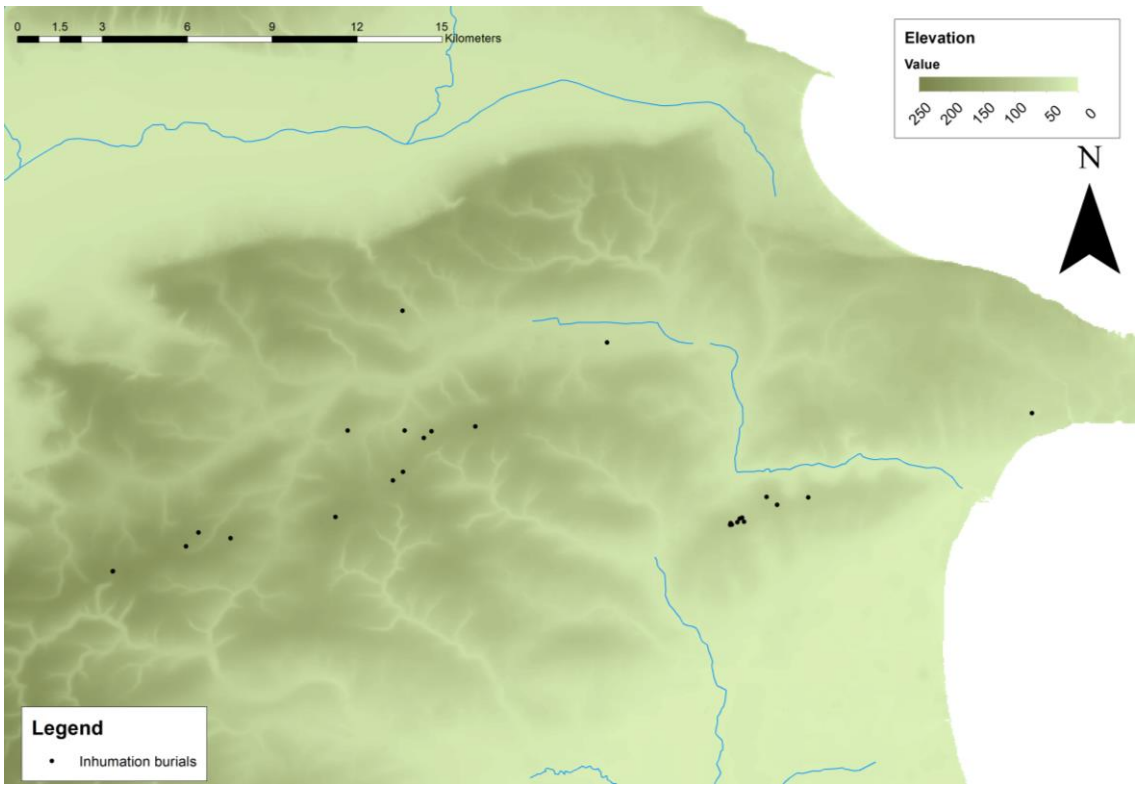

Figure 5.14: Distribution of inhumation burials in Upper Wolds Valley round barrows

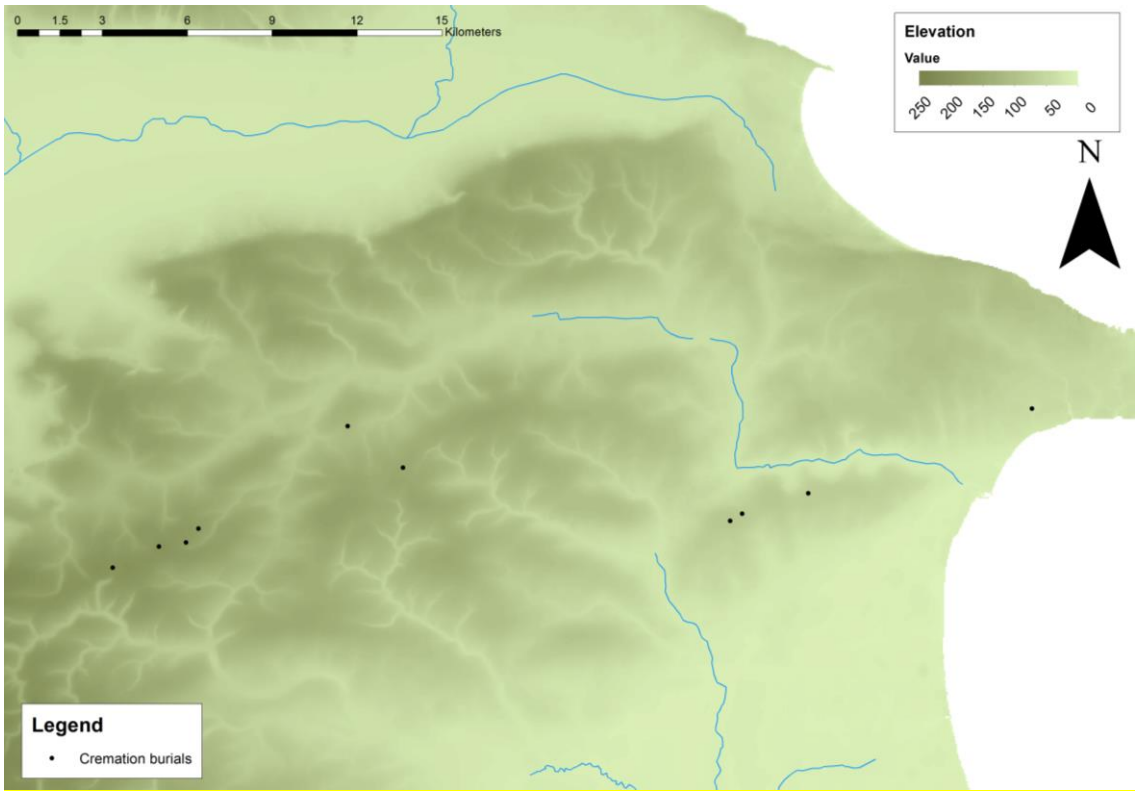

Figure 5.15: Distribution of cremation burials in Upper Wolds Valley round barrows

Burial sites with just inhumation are distributed widely across the river valley from the Rudston-Burton Fleming monument complex along all but a small portion of the Gypsey Race (Figure 5.14). There is only one site with only cremation burials: Mortimer

7 near to the source of the river (Figure 5.15). Barrows with a combination of both practices are found all along the river.

Round Barrows	Ground Surface	Burial Mound
Greenwell 39	1 Inhumation	
Greenwell 42	1 Inhumation	
Greenwell 43	2 Inhumations	10 Inhumations
Greenwell 44	3 Inhumations	
Greenwell 47	5 burials	
Eshs Round Barrow	3 Inhumations 4 Cremations	
Greenwell 57	9 Inhumations	1 Inhumation
Greenwell 60	4 Inhumations	2 Inhumations
Greenwell 61	4 Inhumations 1 Cremation	2 Inhumations
Greenwell 62	11 Inhumations 3 Cremations	3 Inhumations
Greenwell 63	9 Inhumations 1 Cremation	6 Inhumations
Greenwell 64	1 Inhumation	2 Inhumations
Greenwell 65	1 Inhumation	1 Inhumation
South Side Mount Barrow	3 Inhumations	21 Inhumations
Greenwell 68	5 Inhumations	2 Inhumations
Greenwell 69	1 Inhumation 1 Cremation	
Mortimer 7	1 Cremation	
Mortimer 21	3 Inhumations 1 Cremation	
Mortimer 72	3 Inhumations 1 Cremation	
Mortimer 106	3 Inhumations	
Dog Hill	1 Inhumation	
Mortimer 280	3 Inhumations 1 Cremation	
Mortimer 297	1 Inhumation 1 Cremation	2 Inhumations
Round Barrow 500	2 Inhumations	
Willie Howe	6 Inhumations	

Table 5.5: Treatment of human remains in the Upper Wolds Valley round barrows

The placement of remains within round barrows in the Gypsey Race divided into two categories: burials beneath mounds and those that had been added to the mound after it was built. There are 25 sites with burials of various types in Table 5.5, which is the entirety of the excavated dataset. The predominance of barrows with inhumation

burials is apparent with the exception of Mortimer 7. Cremations in round barrows are extremely sparse in comparison. None of the barrows have cremation burials inserted into the mound. In the Upper Wolds Valley, all of the burials inserted into mounds are inhumations. In combination with the associated pottery, the majority were Food Vessels (c. 2150-1700 BC), it would indicate that cremation burial never had the uptake in the Upper Wold Valley that it did elsewhere in Yorkshire and Britain.

Regarding the other aspects of the treatment of remains in the Gypsey Race: graves and cists, and evidence of burning. Answering the question of cist burials in the dataset is fairly straightforward as there are none. Examination of the mortuary practices surrounding the Wolds carried out by Petersen (1970) indicates that there is a great deal more variety in burial arrangements than a simple grave/cist dichotomy. Wood is part of linings, structures, and coffins – Mortimer (1905) examined this phenomenon attributing it to the construction of mortuary houses for the dead that were then covered over or even burnt. There is an example of a wood-lined grave for the remains of a child in South Side Mount Barrow (Greenwell, 1877). Another example of the use of wood in graves is Willie Howe, where excavation revealed an inhumation within a coffin burial (Brewster and Finney, unpublished). Many other examples have been found in the Wolds away from the course of the Gypsey Race but this was the first to be located a closer distance to the river (Ashbee, 1960; Petersen, 1970).

There are only four sites with evidence of burning in the Yorkshire Wolds and these barrows are all situated on the higher ground so that they would be visible elsewhere (Figure 5.16). These findings are reminiscent of Downes' (2005) comments on the role of spectacle reiterating Mizoguchi (1993). There are only a few cremation burials in the Wolds valley but these sites are located at key points in the landscape. The easternmost is near to the Rudston monument complex and the other three are near to the concentration of round barrows near the source of the Gypsey Race.

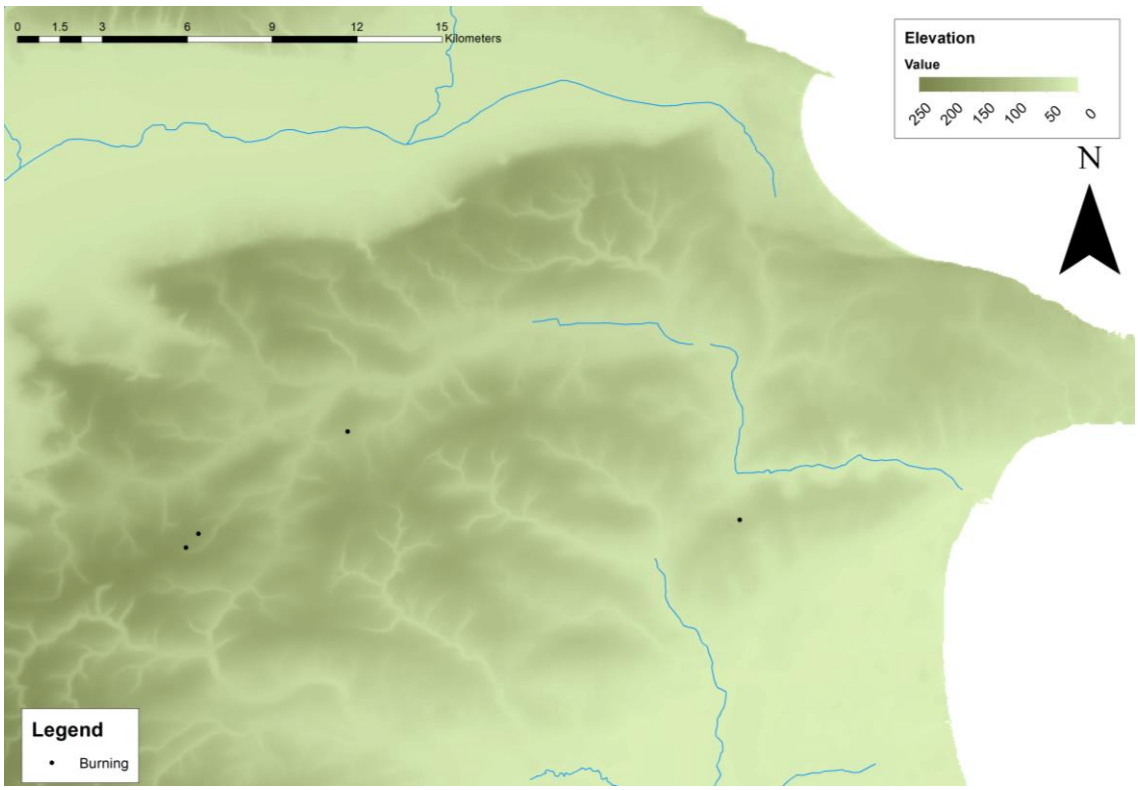

Figure 5.16: Distribution of burning in Upper Wolds Valley round barrows

5.6. Conclusion

The composition and architecture of barrows in the Upper Wolds Valley is straightforward. Burial mounds were formed from easily available materials from the surrounding area: earth and chalk rock, or in two cases clay from local pits or pipes. While some barrows are made up of one of these materials or a combination of two, there are other sites where there the barrow stratigraphy is divided between earth and stone. This change in material occurs at c. 2100 BC and using these materials represents a change in emphasis in the wider landscape. Putting earth over chalk burial mounds assimilates barrows into the surrounding landscape and this occurs at the sites: Greenwell 47, 65, and Mortimer 106. Relative dating of an early series Long-Necked Beaker and the large concentric twin stake circle surrounding the inner mound at Greenwell 47 establishes that the secondary mound was added after c. 2200 BC. Other barrows are the exception to this: Greenwell 68 contained a burial associated with a flat-riveted dagger dating from c. 2100 BC onwards, and Greenwell 62, which had later pottery such as S-Profile Beakers and Food Vessels buried in a grave cut through the earth mound (displacing an existing burial), were both capped by chalk. There was little further funerary engagement with the round barrows after Food

Vessel Vases passed out of use (c. 1750 BC onwards with the appearance of Collared Urns and their successors).

There are two distinct but overlapping traditions of activity: one associated with earlier Carinated and Necked Beakers, and a briefly overlapping, proceeding one related to metalwork, later S-Profile Beakers, and Food Vessels. This earlier mode is fixed around the earlier Neolithic round barrow monuments and in some cases, associates itself directly with them. This is the situation at Greenwell 66, a long barrow with Long-Necked and Short-Necked Beaker burials, Duggleby Howe's Burial M, which dated to the turn of the second millennium BC, as well as South Side Mount Barrow, which had Carinated Beakers in the mound layers. Many of the chalk inner mounds including Greenwell 47 and the others originated in the Late Neolithic period. The presence of a Weak Carinated Beaker burial beneath the mound of Greenwell 63 indicates that these mounds have their origins c. 2300 BC. After c. 2000 BC, another artefact tradition takes root that revolves around Food Vessels, S-Profile Beakers, and metalwork. There is a period when these two traditions overlap at sites such as Greenwell 62 where various Beaker forms and Food Vessels appear throughout the stratigraphy. Despite the difference in artefact types, mortuary practice remains consistent as the majority of round barrows contain inhumations with only a few cremation burials in the upper layers of later round barrows (or earlier Neolithic cremations that had been disturbed by later burials). The focus of these sites remains near the older, more spectacular Neolithic monuments such as the Rudston complex.

Along the Upper Wolds Valley, there is a definite recollection of the past and an attempt to deliberately invoke and re-invoke memory. New burial practices and the round barrows are integrated into monuments throughout the period c. 2300-1700 BC. This begins with burials being added in relation to Neolithic monuments and after c. 2100/2000 BC, mortuary practice focuses on these Early Bronze Age round barrows. There are trends and continuities but they are utilised in a very different manner between c. 2500 and 1500 BC. Some barrows were manipulated and altered to change this memory of the past and highlighted two phases.

Chapter 6. Case study 2: the Ure-Swale Interfluve

6.1. Introduction

The majority of round barrows were weighted towards the east of Yorkshire. The Ure-Swale interfluve begins in the Pennine hills and finishes in the lower lying Vale of Mowbray. This is a landscape with round barrows but not one that was dominated by them. The Ure-Swale interfluve is formed by the river valleys of the Ure and Swale. The slight rise between the two watercourses acts as a natural platform between the Pennine mountain range and the Cleveland and Howardian Hills. It is one of the least publicly well-known but one of the most significant prehistoric landscapes of Yorkshire dating to the beginning of the Neolithic period. It crosses several different topographies and geologies and includes some of the earliest round mounds outside of the east Yorkshire.

Almost 80 possible round barrows have been identified within and around the Ure-Swale interfluve. There are a number of limitations with this material: there are only eleven sites from the period with verifiable and detailed published excavations. These are the Three Hills, the Centre Hill, the Malmesbury Common barrows, Quernhow, Stapley Hill, the West Tanfield Beaker burial, and the Nosterfield ring ditch burial. The investigations of Grinsell 6, a Neolithic barrow, bring the total up to twelve. The majority of those excavations were carried out in the 19th Century (only 6 sites were excavated after 1900). The most prolific of these excavators was Reverend William Collins Lukis who published widely on prehistoric remains both in Britain and abroad. During 1864, Lukis excavated seven round barrows: the Three Hills, the Centre Hill barrow, near Thornborough, and three others on Malmesbury Common (1870). Lukis was not the first antiquarian in the area. Two third-hand accounts detail the alleged opening of Giants Grave, where a large skeleton and a flint implement ‘shaped like a scythe’ was recovered (Whellan and Sheahan, 1859a; Bogg, 1909). In 1870, Lukis recovered three flint arrowheads from Sixpenny Hill which are now in the British Museum (who purchased his collection after his death). There is no excavation report associated with these artefacts (Green, 1980).

Stapley Hill was opened and excavated in 1903 recovering an inhumation with a Food Vessel, and two Collared Urn cremations. Wide Howe, near Baldersby, was opened in 1909 with two 'urns' recovered. This is the extent of the record and attempts to track down these vessels were unsuccessful (Manby, 1971). Expansion of the A1 in 1949 led to the excavation of a round barrow: Quernhow, a multiple cremation site with a number of associated vessels and structural features (Waterman, 1951). A survey of the Ure-Swale interfluve round barrows was carried out by Leslie Grinsell in 1953 who recorded a number of sites in as much detail as was possible. These results were published in an appendix to the excavations carried out at in the same decade at the Thornborough henges (Thomas, 1955). Quarrying near West Tanfield led to the discovery of the sole Beaker (a Mid-Bellied S-Profile type) burial within the region in 1973 (Mayes et al., 1986). This site was previously unknown and did not appear to have any associated previously surveyed mound. It is contemporary to c. 2500–1500 BC and was incorporated into the dataset.

At the turn of the millennium, more excavation work was carried out by a team from Newcastle University on the Thornborough monuments. The project investigated one of the Three Hills and the large Neolithic round barrow surrounded by three ring-ditches (Harding, 2013). Work carried out by the Archaeological Planning Consultancy produced a detailed summary of the archaeology of the lowland Ure-Swale interfluve in *Holes in the Landscape* (Dickson and Hopkinson, 2011). This report was the result of a two-decade long project investigating the archaeology of the Nosterfield area. It published the discovery of the remains of a ring-ditch encircling a pit with unidentified pottery and a cremation deposit excavated in 2002. Radiocarbon dating identified these cremated remains as having a range of c. 1980–1760 BC and the site was interpreted as the remains of a round barrow levelled by ploughing over time (Dickson and Hopkinson, 2011, p. 135, 215-216). Most of the archaeological research of the area, particularly the lowlands, was collated by the Thornborough Project in 2003 (Harding, 2013), *Late Quaternary Landscape Evolution of the Swale-Ure Washlands* (Bridgland et al., 2011), and *Holes in the Landscape* (Dickson and Hopkinson, 2011). These projects were invaluable in examining the role of round barrows in the interfluve and form the basis for this chapter. They are not comprehensive in their

treatment of the archaeology. The Thornborough Project featured excavations of two round barrow sites but focused on the Neolithic monument complex. Whilst *Late Quaternary Landscape Evolution of the Swale-Ure Washlands* was broader in geographical scope, it had a geological and environmental history perspective dealing with a vast chronological range. Similarly *Holes in the Landscape* summarises much of the recent archaeological development on the Bronze Age in the region - it is a multi-period study focused around the Nosterfield quarry. All of these studies focused on the more archaeologically intense lowlands but both the rivers Ure and Swale have their source in the Pennine uplands.

This chapter examines the region's Early Bronze Age round barrows in relation to the older Neolithic monuments and reconstruct the sequences involved in their construction. Very little attempt has been made to synthesise the available material on round barrows in the Ure-Swale interfluve, this chapter summarises the available evidence in the context of the landscape and the Neolithic complexes. After introducing the geology and prehistory of the region leading up to the Early Bronze Age, this chapter focuses on the composition and architecture of barrows, the distribution of artefacts associated with remains and the associated mortuary practices. This chapter collates this material to provide an insight into the role that round barrows played in the landscape of the region during the Early Bronze Age.

6.2. Geology and archaeological background

The archaeological research on the area focused extensively on the Neolithic remains around the interfluve as the area date to c. 4000 BC onwards, including henges, standing stones, and cursus monuments. These were identified and reported by antiquarians in the nineteenth century or by aerial photography and survey in the twentieth century.

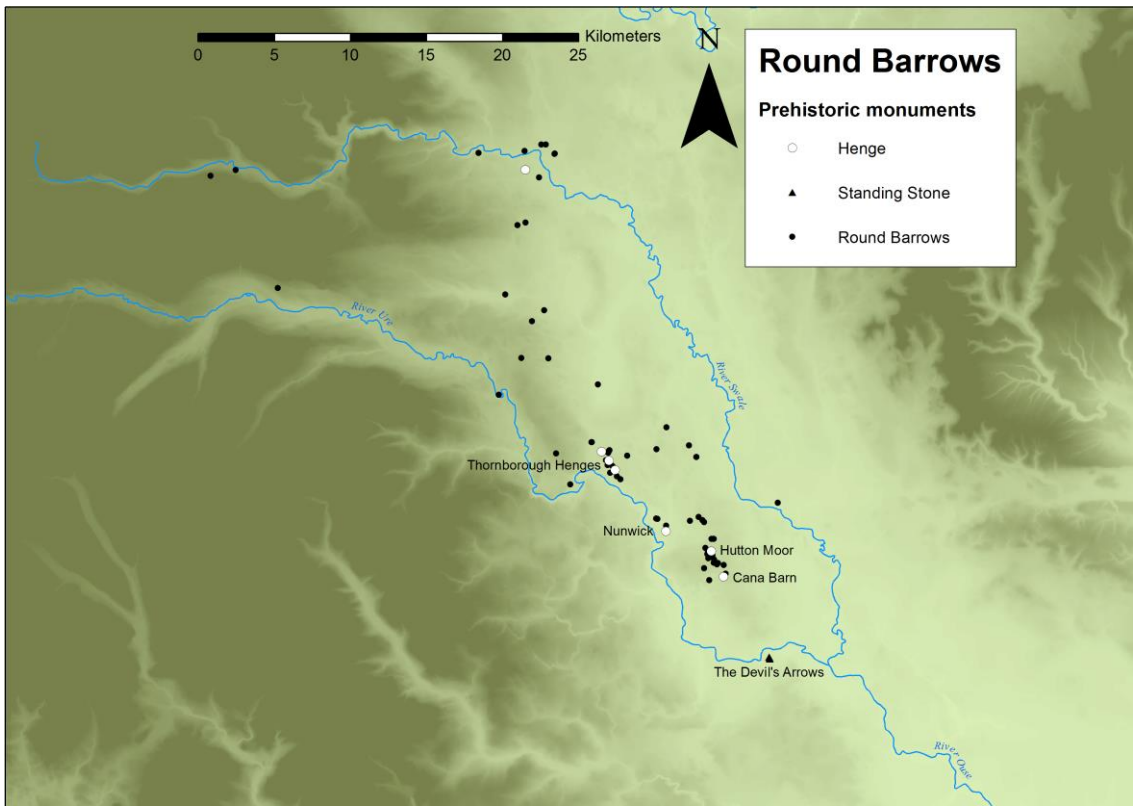

Figure 6.1: Prehistoric monuments in the Ure-Swale interfluve

Figure 6.1 shows the Early Bronze Age round barrows as well as the key Neolithic monuments situated in and around the Ure-Swale interfluve overlying a map of the local topography. The Ure and Swale flow downhill from their sources in the Pennine hills framing the low-lying land. The valleys formed by these two watercourses create a terrace in this lower lying area, raising it subtly in contrast to rest of the Vale of Mowbray. The river channels were the product of melt from the last period of deglaciation which accounts for the formation of the interfluve. Prior to c. 12,000 BC, the Ure-Swale interfluve was the shore of Lake Humber, a vast body of water stretching over much of southern Yorkshire. The edges of this ancient lake formed the sand and gravel beds to the north and lacustrine mudstone to the south observable in the local drift geology. Lake Humber is responsible for the formation of wetland particularly the peat-beds formed from deposits of decaying vegetation that accumulated in the lakebed. The former lakeshore allowed a path of least resistance as the river channels formed from the melt as the ice receded to the north and the lake drained into the North Sea. Later, the river and the erosion of the upland hills resulted in the formation of the rich and fertile alluvial beds at the lower parts of the washlands. The drainage of the landscape for agricultural purposes over the last few

hundred years altered the interfluve from how it would have been during the Early Bronze Age. Though the gently rolling topography framed by hills would have been familiar, the Ure and Swale were large powerful rivers cutting through the landscape and framing deciduous forests to the south and peat bogs, other wetlands, and the two large lakes to the north (Bridgland *et al*., 2011, p. 261 - 264).

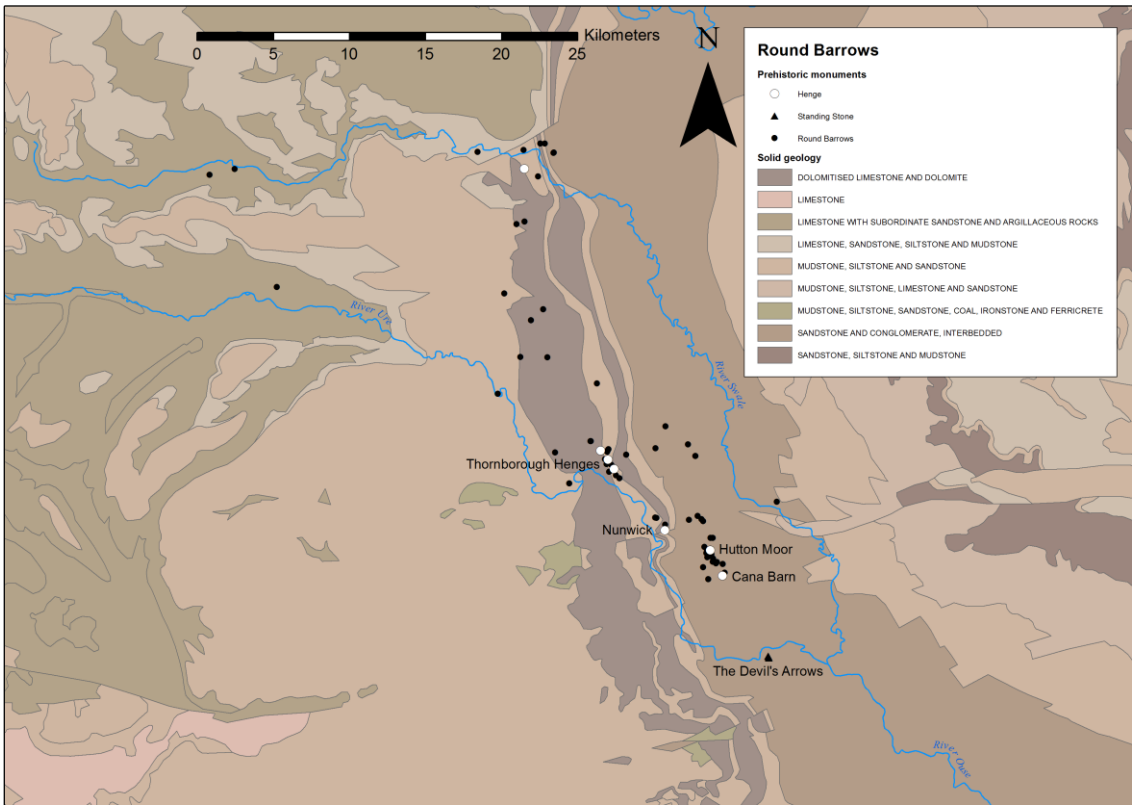

Figure 6.2: Prehistoric monuments overlying the Ure-Swale interfluve solid geology

The prehistoric archaeology of the Ure-Swale interfluve is focused within the Permian Ridge and the Triassic Vales of Mowbray and York (Figure 6.2). The solid geology of the region is divided between various beds of sandstone, mudstone and limestone. There are significant pockets of marl and gypsum within the Permian limestone of Ure-Swale interfluve. In combination with the area's significant hydration, this resulted in subsidence and the formation of sinkholes along the band – this has been reported in historical times and in the present day, gypsum karst is a significant problem for planning and construction (Cooper and Calow, 1998). The presence of this material has been identified in a number prehistoric contexts such as the Thornborough henges (Thomas, 1955) and the Centre Hill round barrow (Lukis, 1870).

The interfluve contains a number of Neolithic monuments recorded as cropmarks or as rises in the ground surface. The most prominent is the alignment of monuments at Thornborough and the similar complexes further south at Cana Barn, Nunwick and Hutton Moor. To the north at Catterick, there is a similar monumental complex comprising a possible henge south of the Swale and the Scorton cursus, on the northern side of the river. West of the main interfluve in the Pennine uplands is Maiden Castle, a large circular cairn-ring, on the southern bank of the Swale. There is evidence of a larger Neolithic round barrow in close proximity to the central henge of the Thornborough complex (Harding, 2013).

Similar to Rudston (see Chapter 5), cursus monuments are the oldest surviving monuments in the area. There are two examples at Thornborough: the first, discovered by Joseph K. St. Joseph during aerial surveying in 1951 (1977), aligns north-easterly/south-westerly toward the River Ure nearest to the central henge and a second was identified in aerial photographs near the northern henge. Excavations at the central Thornborough henge in 1952 discovered it overlaid the cursus (Thomas, 1955). A later excavation carried out in 1958 identified the limits of the monument and discovered that the cursus ditch was not continuous (Vatcher, 1960). Neither excavation uncovered datable evidence. No excavation has been carried out on the second cursus near the northern henge. Other examples include Copt Hewick, constructed along a ridge on a similar alignment to the Thornborough NE/SW cursus upriver, and another near Kirklington; neither have been fully investigated. The Scorton cursus excavation in advance of gravel extraction in 1978 recovered Beaker sherds from the primary silt of north-western ditch indicating activity during the latter part of the third millennium BC (Topping, 1982).

Figure 6.3: The central henge at Thornborough

The focus of the archaeological interest in the region are the henges of the Ure-Swale interfluve: the three at Thornborough, the two at Cana Barn and Hutton Moor, and the examples at Catterick and Nunwick. The Thornborough henges were first excavated in 1952 by Nicholas Thomas. They were previously investigated by St. Joseph's aerial surveys in 1951 and by O. G. S. Crawford in 1927 (Thomas, 1955). This excavation focused on the central henge (pictured in Figure 6.3) and identified that it overlaid the NE/SW Thornborough cursus and that the henge banks were coated with gypsum to make them white (Thomas, 1955, p. 429). The Thornborough Monument Project managed by Newcastle University carried out excavation work on the central and southern henges between 1998 and 2003. This excavation uncovered evidence of backfilling and post-holes in the henge ditches indicating that the monument contained a palisade during the early phases of its existence. The other henges were identified during St. Joseph's aerial survey but only Nunwick was excavated (Dymond, 1963). A possible henge was identified at Catterick (Moloney and Archaeological Services, 2003). Vyner (2007) proposed that the henges of the Ure-Swale interfluve

were part of a monument network in the wider British context. His Great North Route connected the Ure-Swale henges to other examples as far north as County Durham, to sites such as Hastings Hill, Copt Hill and the Chester-le-Street monuments and as far south as Cadeby in the Don Valley (2007).

Figure 6.4: The Devil's Arrows at Boroughbridge

The henges represent the majority of Neolithic monuments in the region there are two other significant monuments: the Devil's Arrows, a standing stone alignment outside of the Ure-Swale interfluve (pictured in Figure 6.4) and a Neolithic round barrow close to the Thornborough complex. The Devil's Arrows are a stone row situated close to the confluence of the Swale and Ure rivers near the town of Boroughbridge sourced from Millstone Grit outcrops at Plumpton Rocks, near Knaresborough (Burl, 1991). The row aligns with the henges at Hutton Moor and Cana Barn. There are potentially two examples of Neolithic burial mounds in the Ure-Swale interfluve but only one with a recorded excavation. This site was identified and catalogued by Leslie Grinsell (Thomas, 1955) and excavated in 2003 as part of the Thornborough Project. The triple ring-ditched round barrow was badly mutilated by agricultural ploughing. The excavation recovered human remains and flint assemblages dating to the Neolithic in pits cut through the initial mound (Harding, 2013). Another potential Neolithic round barrow was Giants Grave, a round barrow with a third-hand excavation report from

Whellan's *History and Topography of the City of York* (1859b) was discounted from the dataset.

6.3. Round barrow mound composition and architecture

Lukis recorded the stratigraphy of his sites in detail. Later excavations in the twentieth century were more thorough in recording the differing structures of mounds in the Ure-Swale interfluve in relation to the unique nature of the local geology. The breakdown of round barrows with mounds and their compositions is shown in Figure 6.5.

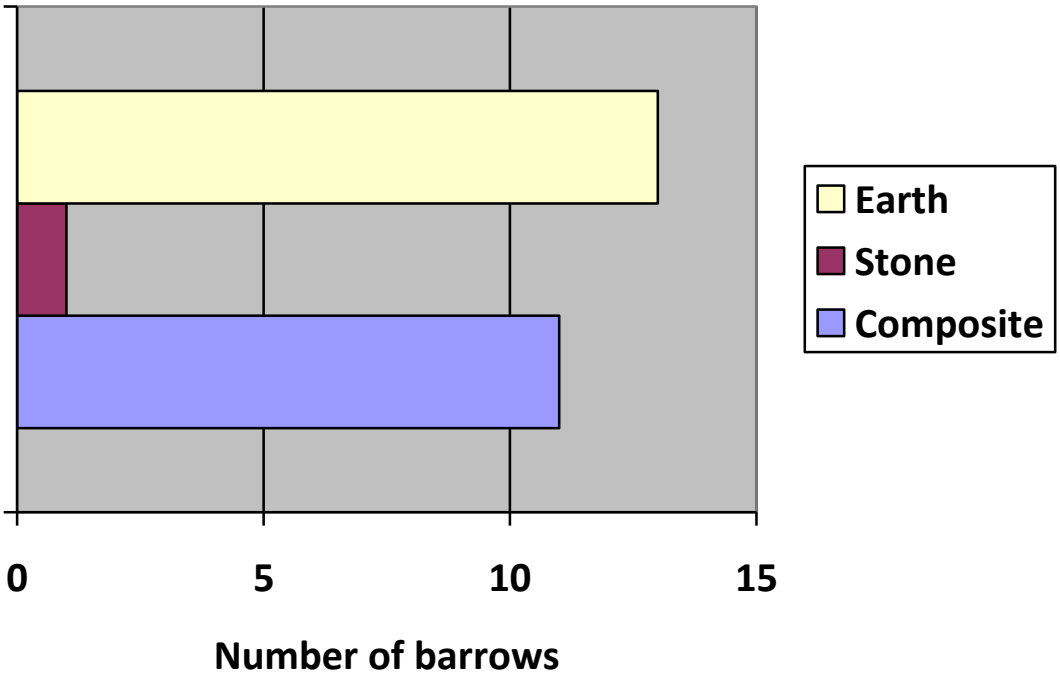

Figure 6.5: Composition of barrow mounds in the Ure-Swale interfluve

In comparison with Table 4.1, the overall data from the Ure-Swale interfluve matches the rest of Yorkshire. The majority of round barrows are earthen mounds, composite sites being the next most common, and finally cairns (stone) being the least populous in the region. These results are based on all of the round barrows in the Ure-Swale interfluve with recorded mounds including the unexcavated sites. Focusing on the excavated sites where the stratigraphy has been recorded in more detail illuminates the methods and processes of construction of round barrows. Location is a significant factor in the construction of these sites (see Figure 6.6).

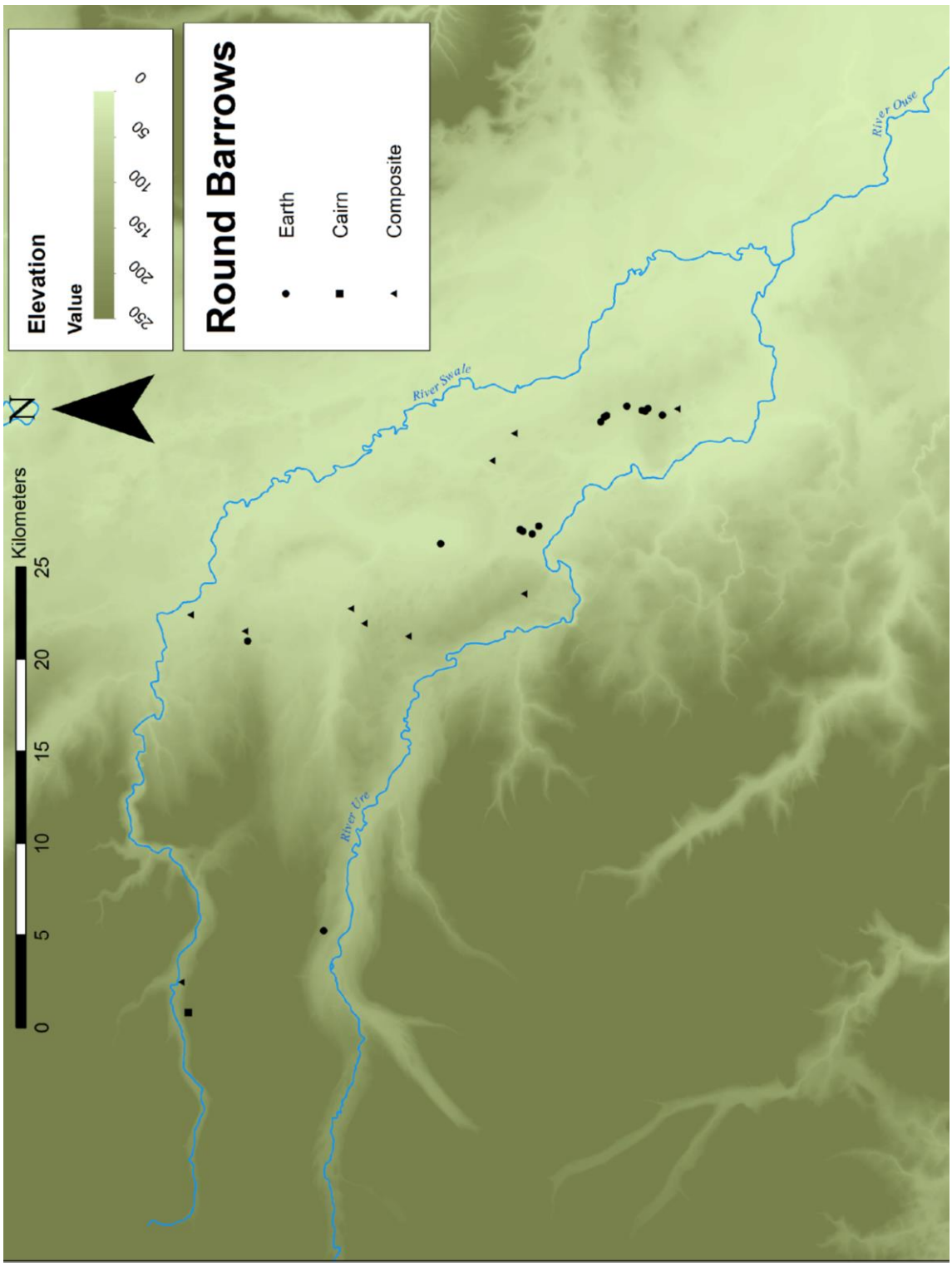

Figure 6.6: Distribution of Ure-Swale interfluve round barrows by composition

Collating the findings from Figure 6.6, earthen barrows are more numerous than the other types of mound they are less clustered very tightly together in bounded groups. Composite sites are distributed more evenly over the Ure-Swale interfluve covering

both the lowlands and the uplands. Taking more detailed information from excavation reports, Table 6.1 lists the detailed compositions of burial mounds:

Barrow	Reference	Composition Type	Mound Composition
Stapley Hill	McCall (1904); Grinsell (1953)	Composite	Primary mound comprised of multiple soils from the local area, reinforced with oak wood and river cobbles, then overlaid with more soils.
Three Hills	Lukis (1870); Grinsell (1953)	Earth	Mound comprised of clay, interspersed with charcoal, pottery fragments, and burnt remains.
Three Hills	Lukis (1870); Grinsell (1953)	Earth	Mound comprised of clay
Three Hills	Lukis (1870); Grinsell (1953)	Earth	Mound comprised of clay, interspersed with charcoal, pottery fragments, and burnt remains.
Centre Hill Barrow	Lukis (1870); Grinsell (1953)	Earth	Mound comprised of clay.
Grinsell 20	Lukis (1870); Grinsell (1953)	Earth	Mound comprised of local sand.
Quernhow	Waterman (1951); Grinsell (1953)	Composite	Primary mound comprised of local glacial cobbles, mixed sand and loam, followed by loamy sand. Retaining bank made of stiff, dark, sandy loam. Secondary mound
Grinsell 18	Lukis (1870); Grinsell (1953)	Earth	Mound comprised of local sand.
Grinsell 19	Lukis (1870); Grinsell (1953)	Earth	Mound comprised of local sand with fragments of pottery.

Table 6.1: Detailed barrow mound compositions of the Ure-Swale interfluve

Sand and clay, both of which are very common locally, make up the majority of burial mounds in the Ure-Swale area. Those mounds that incorporate stone as a major material in their structure use easily obtained river or glacial cobbles. Figure 6.7 shows those mounds in the data-set with associated compositions overlying the drift geology, and Figure 6.8 is the same map but focused on those sites listed in Table 6.1.

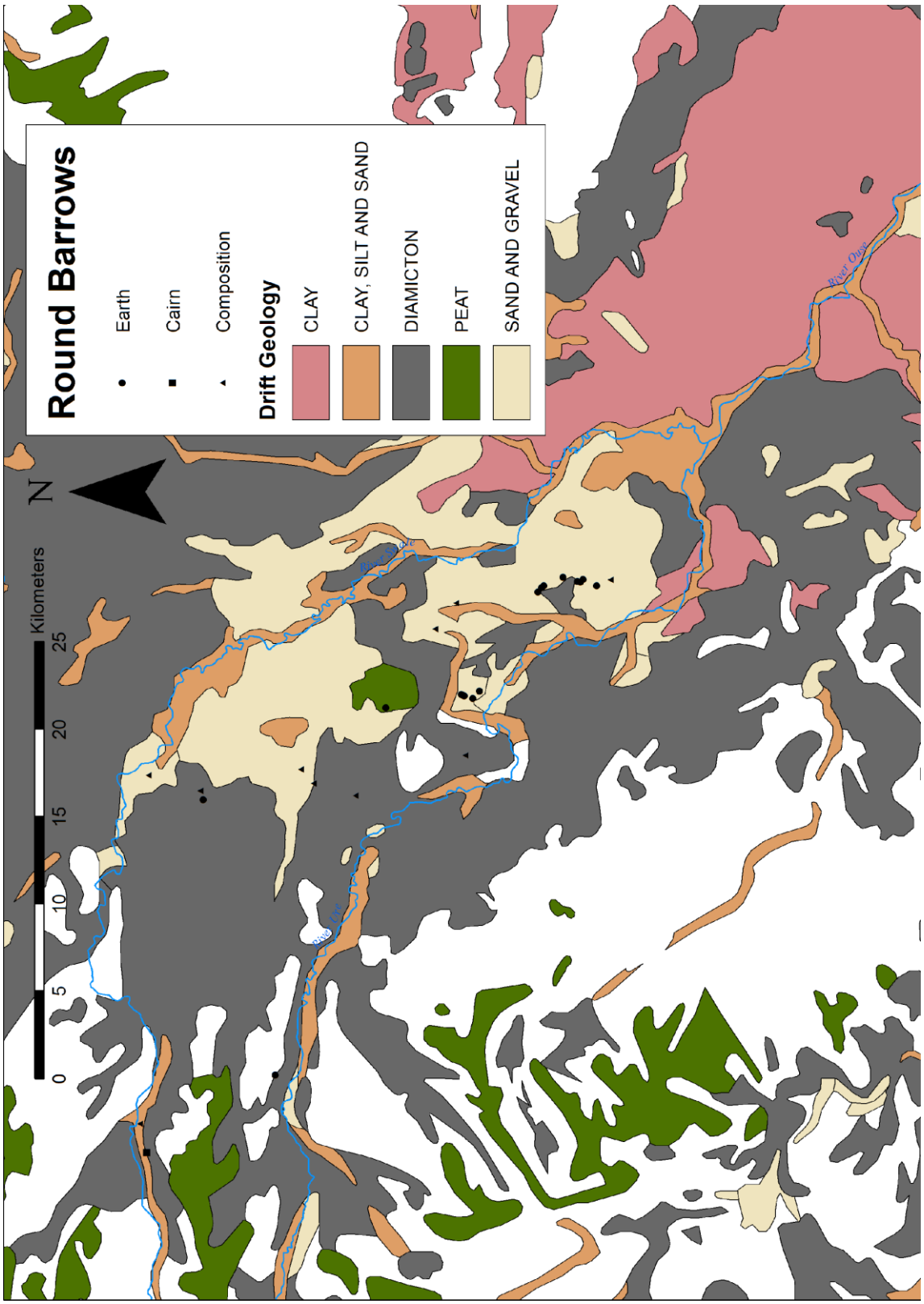

Figure 6.7: Round barrows by composition overlying the Ure-Swale interfluve drift geology

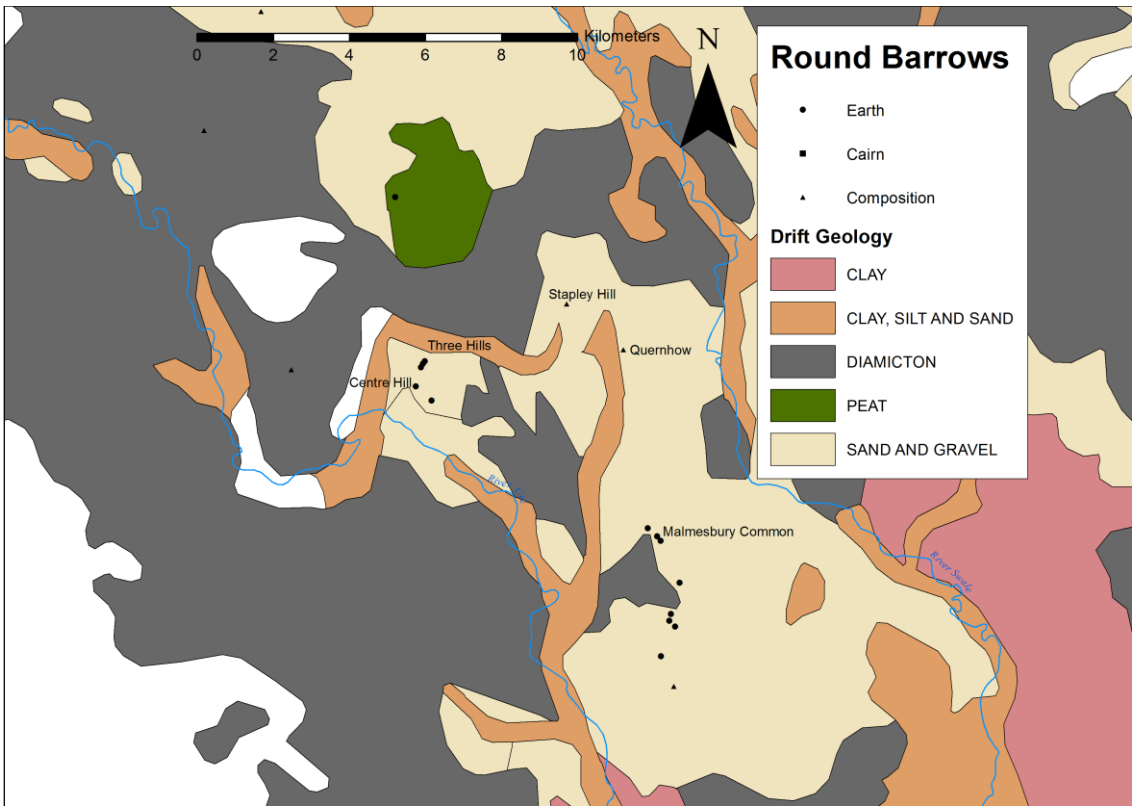

Figure 6.8: Round barrows by composition overlying the Ure-Swale interfluve lowlands geology

Examining the wider region, the majority of the round barrows in the Ure-Swale interfluve are situated on the lowland sand and gravel terrace. There are only three sites on the diamicton beds in the uplands with three others on the sand and gravel deposits, one example on the peat, and two on the clay, silt, sand mix at the bank of the Swale. One of these is a cairn located in close proximity to outcrops of Millstone Grit. Figure 6.8 shows the sites from Table 6.1 are concentrated on the sand and gravel terrace. All these barrows are in close proximity to the resources employed in their construction. Centre Hill and the Three Hills are close to the Ure's river terrace and clay beds are located a few kilometres south of these sites nearer the confluence. The Malmesbury Common round barrows are directly on the sandy soils used to build their mounds. The sand and cobbles used to construct Quernhow's mound would have been sourced from both the sand and gravel terrace as well as the rivers nearby. Stapley Hill was constructed of local soils and glacial erratic cobbles easily obtained from the surrounding area (McCall 1904).

Although Lukis (1870) recorded the overall stratigraphic record for his round barrows, the information that he reported was much less detailed than other excavations within

the Ure-Swale interfluve. There are two sites with more detailed excavation reports that share traits with round barrow sites outside of the interfluve. Waterman (1951) noted that Quernhow was similar to round barrows in north-east Yorkshire at East Ayton and Brotton Warsett on the strength of the structural features (1951, p. 24). Green Howe in North Deighton was similar to Quernhow in structure and sequence.

On the ground surface beneath the mound there were Neolithic shallow scoop pits at Quernhow (although one contained a Food Vessel deposit). Neolithic diagnostic artefacts such as pottery, flint, and stone axe fragments were recovered at Green Howe. Both barrows had a retaining structure as part of their mounds and evidence of continued structural alteration over time. Recent radiocarbon dating from Green Howe indicated that the burials have a range of c. 2300–1650 BC (Walsh, 2013). There are no radiocarbon dates obtained from Quernhow but Waterman proposed a sequence of based upon weathering evidence on the initial mound's outer surface (1951).

Stapley Hill bears similarity to other round barrows outside of the interfluve. It was an earth composite barrow containing two features often observed in the Yorkshire Wolds: varying layers of soil (unidentified in the report) and a wooden structure that reinforced the primary mound (McCall, 1904). Though there are no direct comparisons, there are round barrows on the Wolds with evidence of wood incorporated in their structures (Petersen, 1970). This includes wood-lined graves and pits and upstanding mortuary enclosures that best approximate the primary barrow at Stapley Hill but there are no completely identical examples.

Ring-ditches, kerbs, cists and graves occur under or within round mounds in the interfluve. Ring-ditches are common with forty recorded examples. There are two sites that feature external kerbs: the first is Quernhow, and the second is an unexcavated barrow in Howe. A survey of Palet Hill, near Catterick, recorded an internal kerb emerging from the mound. There is no recorded excavation there and Palet Hill was used as a medieval motte (see Figure 6.9).

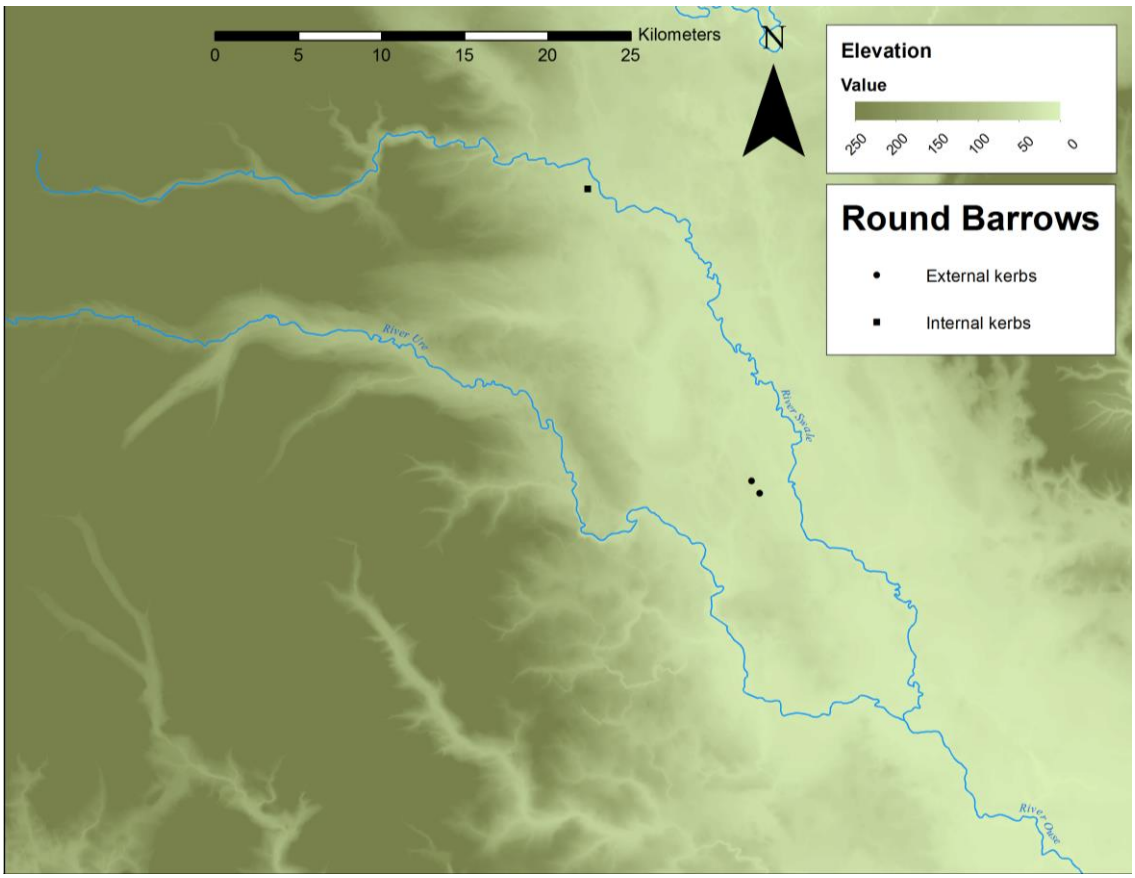

Figure 6.9: Distribution of kerbs in the Ure-Swale interfluve

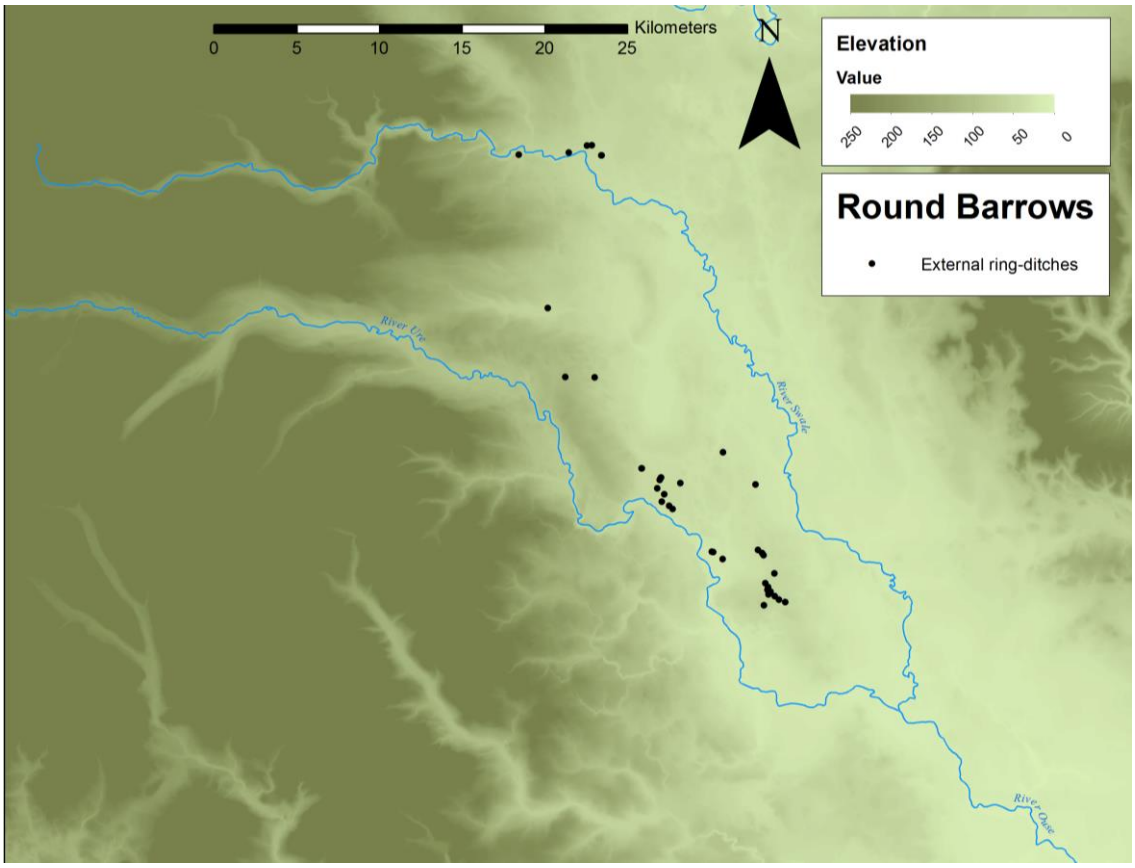

Figure 6.10: Distribution of ring-ditches in the Ure-Swale interfluve

These features are mapped in Figure XX. The greatest concentration of ring-ditches are sited in the lowlands. Although there are examples located north of the Swale close to Palet Hill. This could be the focus of prehistoric activity around the Catterick henge. Without any published excavated material, this is speculation.

There is no evidence of other types of structure beneath round barrows in the Ure-Swale aside from the four scoop pits recorded at Quernhow (Waterman, 1951). Very few of these excavations sought to identify features under the burial mounds of sites, this is a product of the data being predominantly based on Lukis' excavations. Two of the sites in the Ure-Swale interfluve: Quernhow and Stapley Hill have very similar architectural and structural elements to other round barrows in the North Yorkshire Moors, the Yorkshire Wolds, and the Vale of York. All of the materials used in our sites were drawn from in and around the Ure-Swale interfluve.

6.4. Artefact distribution

Lukis commented in the conclusion of his excavation report that the lack of metalwork and fine goods indicated that the people who produced these mounds were more primitive than those of the Wolds or Wessex (1870, p. 126). Victorian assumptions about cultural evolution aside, there are very few artefacts are located in round barrows in the Ure-Swale interfluve in contrast with the diverse range of grave goods in the Upper Wolds Valley (see Chapter 5). The most common object types in the Ure-Swale barrows are ceramics (either sherds or complete vessels) and flint (worked objects and debitage).

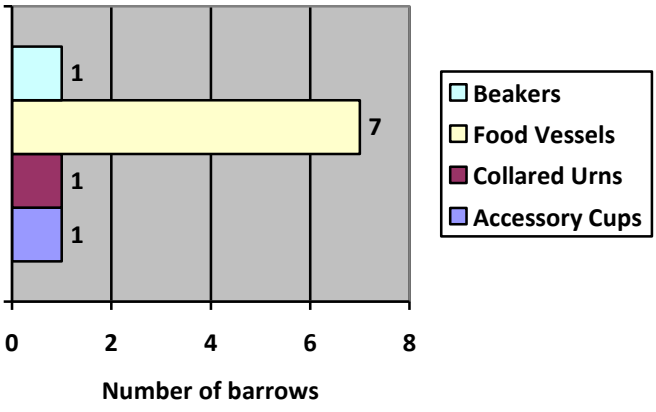

Figure 6.11: Pottery types in Ure-Swale interfluve round barrows

Barrows with Food Vessel pottery form the significant majority but only one round barrow site each has examples of Beakers, Collared Urns, and Accessory Cups. This is a diverse spectrum of pottery with examples of all the major vessel types typical to the Chalcolithic and the Early Bronze Age.

There is a little variety in those Food Vessel types recovered in Table 6.2. There are eight vases from various sites around the interfluve and one bowl identified at Quernhow placing the likeliest date range of these sites at c. 2150 – 1700 BC. The Beaker from West Tanfield is from a similar period as the S-Profile type represents Needham's third phase of Beaker development (c. 1950-1750 BC - *Beakers as past reference*) (2005). This is contemporary with the Collared Urns inserted into the Stapley Hill mound (c. 1950 – 1500 BC), and the Accessory Cup from Grinsell 20 (c. 2000 – 1500 BC). These indicate that most of the activity relating to burial mounds in the Ure-Swale is focused to the period c. 2100-1700 BC.

Round Barrow Site	**Pottery Vessel and Typology**
West Tanfield Beaker Burial	Slender Mid-Bellied S-Profile Beaker
Stapley Hill (Ground Surface)	Food Vessel Vase
Centre Hill Barrow	Food Vessel Vase
Three Hills	Food Vessel Vase
Grinsell 18	Food Vessel Vase
Grinsell 19	Food Vessel Vase
Three Hills	Food Vessel Vase
Quernhow (Primary Mound)	Food Vessel Bowl
Quernhow (Secondary Mound)	Food Vessel Vase
Grinsell 20	Accessory Cup
Stapley Hill (Mound)	Collared Urn
Nosterfield Ring-Ditch	Unknown
Wide Howe	Unknown

Table 6.2: Identified pottery from Ure-Swale interfluve round barrows

Worked flint is also found in association with the Ure-Swale round barrows but it is limited in scope and utility – three barbed-and-tanged arrowheads were recovered from Sixpenny Hill by Lukis. They are in the collection of artefacts in British Museum but no excavation report is associated with them (Green, 1980). Seven scrapers were

recovered from Grinsell 18, and a 'chipped implement' was discovered in Centre Hill by Lukis (Lukis, 1870). Waterman recovered a worked flake from Quernhow's prehistoric ground surface (1951). A quantity of burnt flint was recovered in mound material from Stapley Hill (McCall, 1904) and one of the Three Hills (Lukis, 1870).

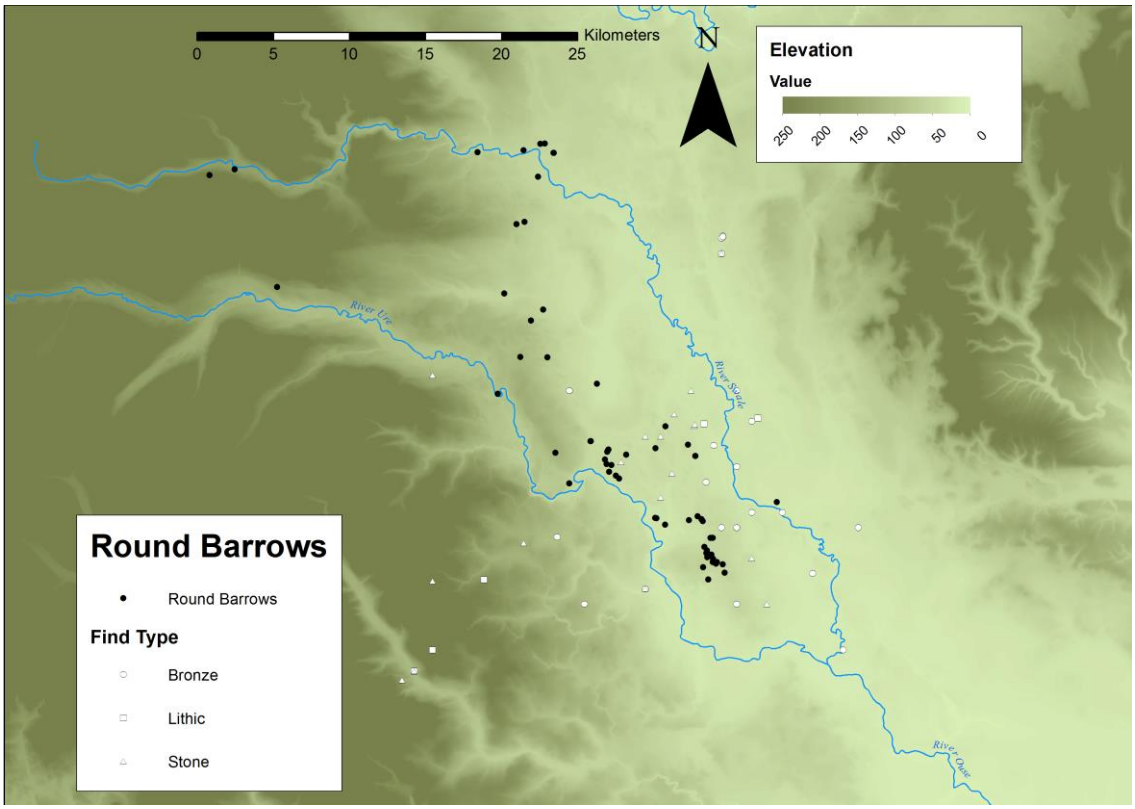

Figure 6.12: Distribution of Ure-Swale interfluve round barrows and findspots

There are a number of find spots of metalwork, stone tools, and lithic scatters located throughout the Ure-Swale interfluve. The relationship between the find spots of these types and the placement of round barrows in the landscape in Figure 6.12. This map incorporates the round barrow dataset and recorded find spots data from Harding (2013). Despite the absence of metalwork from round barrows, there are bronze find spots within the Ure-Swale interfluve. These finds are concentrated away from round barrows towards the southern lowlands and the River Swale. Stone objects are deposited at a distance from burial mounds and focused towards the northern lowlands and the River Ure. Early Bronze Age lithics are focused outside of the interfluve with only one item located near the River Swale.

Much of the round barrow activity in the Ure-Swale interfluve took place c. 2000-1500 BC. Artefacts associated with burials are conspicuously absent despite the location of

contemporary find spots within the region. This disparity indicates that the region had access to exchange networks of bronze axes and polished stone goods but they were incorporated into the burial practice. This contrasts with the Upper Wolds Valley where these items accompanied burials more frequently.

6.5. Burial practice and treatment of the dead

Three examples of inhumation were identified in the Ure-Swale interfluve: the coffin burial in the Centre Hill Barrow, the Beaker burial at West Tanfield, and the Food Vessel burial under Stapley Hill. There were no flat burials recovered within the Ure-Swale interfluve but the West Tanfield Beaker grave could be an example. Taking this into account, cremation is the predominant treatment of human remains.

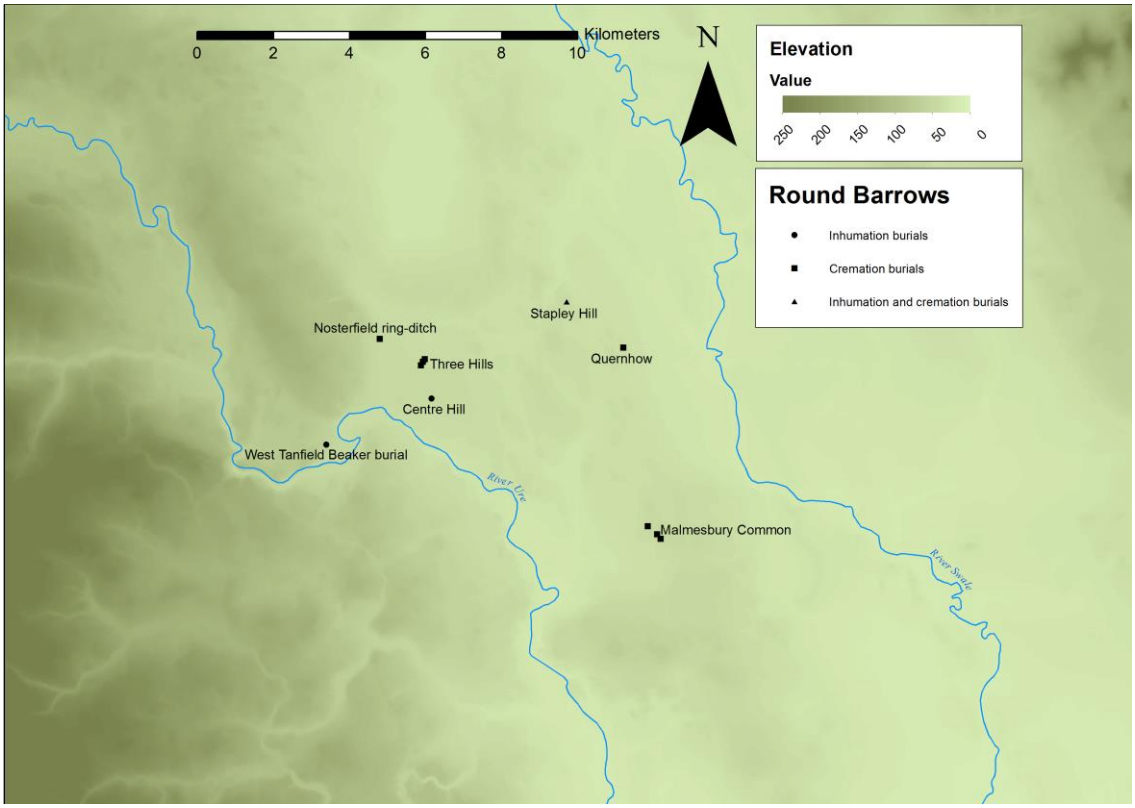

Figure 6.13: Distribution of Ure-Swale interfluve burial practices

All eleven sites with recorded burials are shown in Figure 6.13. They are in relative proximity in the lowlands. Like sites with the same mound compositions were grouped together, round barrows with similar burial practices are located close together: the Three Hills and the Malmesbury Common mounds that have a linear alignment. The West Tanfield Beaker burial is set apart from these sites on the far side of the Ure meander. Both Stapley Hill and Quernhow are situated further west towards the

Swale, they stand apart from the other barrows nearer the Neolithic monument complexes and the Nosterfield ring-ditch is also some distance from away from the Three Hills.

Burials within barrows are recorded in detail in Table 6.3. There are as many barrows without burials in the mound as there are with insertions added to later (discounting the West Tanfield Beaker Burial and the Nosterfield ring-ditch, neither of which had a recorded mound). This could be the result of 19th Century excavations focusing on those burials above or on the ground surface. Comparing Table 6.3 with Figure 6.13, the sites with burials added later in their sequence are situated in proximity. Quernhow, Stapley Hill, two of the Three Hills had burials added to them and are close to one another. In contrast, neither Centre Hill nor the Malmesbury Common barrows (Grinsell 18–20) had additional remains added to their mounds. Stapley Hill featured an initial inhumation on the prehistoric ground surface and was then covered over by a mound. Later in that barrow's sequence, a Collared Urn cremation was inserted into this mound, additional soil was added to the burial mound and then another Collared Urn cremation placed into that.

Barrow	**Ground Surface**	**Mound**
Stapley Hill	1 x Inhumation (N/A)	2 x Cremations
West Tanfield Beaker Burial	1 x Inhumation (Young Male)	N/A
Centre Hill Barrow	1 x Inhumation (N/A)	-
Three Hills	2 x Cremations	1 x Cremation
Grinsell 18	2 x Cremations	-
Grinsell 19	1 x Cremation	-
Three Hills	1 x Cremation	-
Quernhow	5 x Cremations	4 x Cremations
Grinsell 20	1 x Cremation	-
Three Hills	2 x Cremations	1 x Cremation
Nosterfield Ring-Ditch	1 x Cremation	N/A

Table 6.3: Burials in Ure-Swale interfluve round barrows

Given its proximity and spatial relationship to the Three Hills and the Thornborough henges, Centre Hill is the focus of much of the burial activity in the Ure-Swale interfluve. The presence of a coffin burial in the mound makes this site unique and grave for the oak coffin was lined with gypsum similar to the layer coating the banks of the central henge by Thomas' excavations (1955). The nearest example is the Little Ouseburn barrow excavated in 1953 (Rahtz, 1989) (see Figure 6.15 and Figure 6.16). The site was a composite with a cairn overlaid by a turf mound, all of which was covered by the remains of a timber coffin along with a dagger. No other remains were recovered from the barrow and no other finds were located.

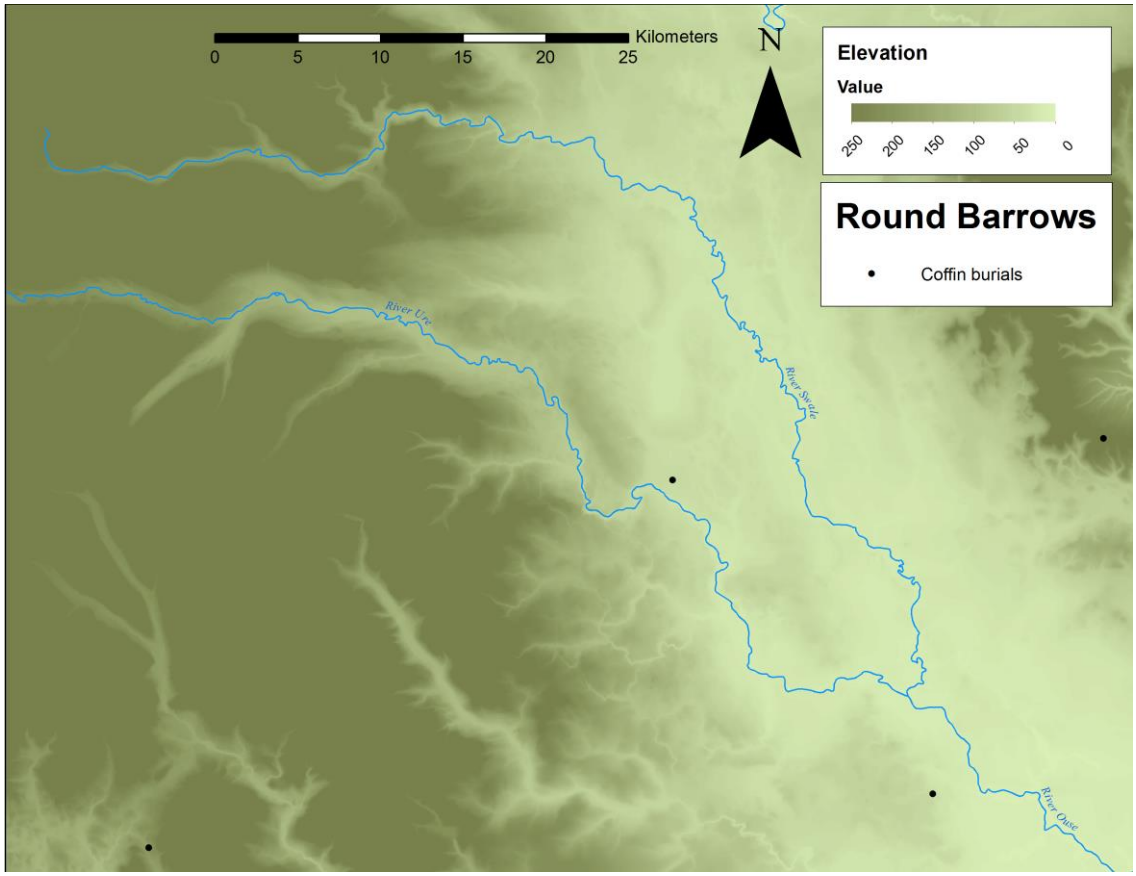

Figure 6.14: Distribution of coffin burials in and around the Ure-Swale interfluve

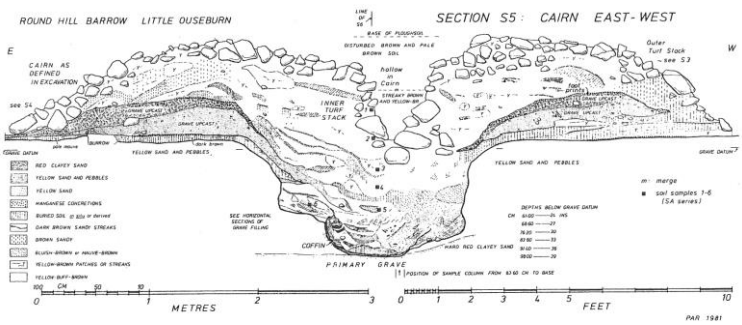

Figure 6.15: Section of Little Ouseburn round barrow (Rahtz, 1989)

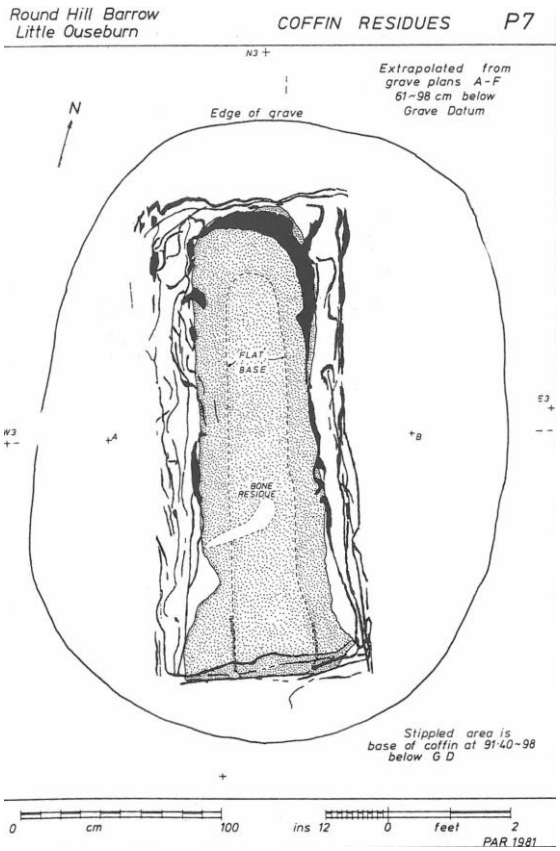

Figure 6.16: Plan of coffin in Little Ouseburn round barrow (Rahtz, 1989)

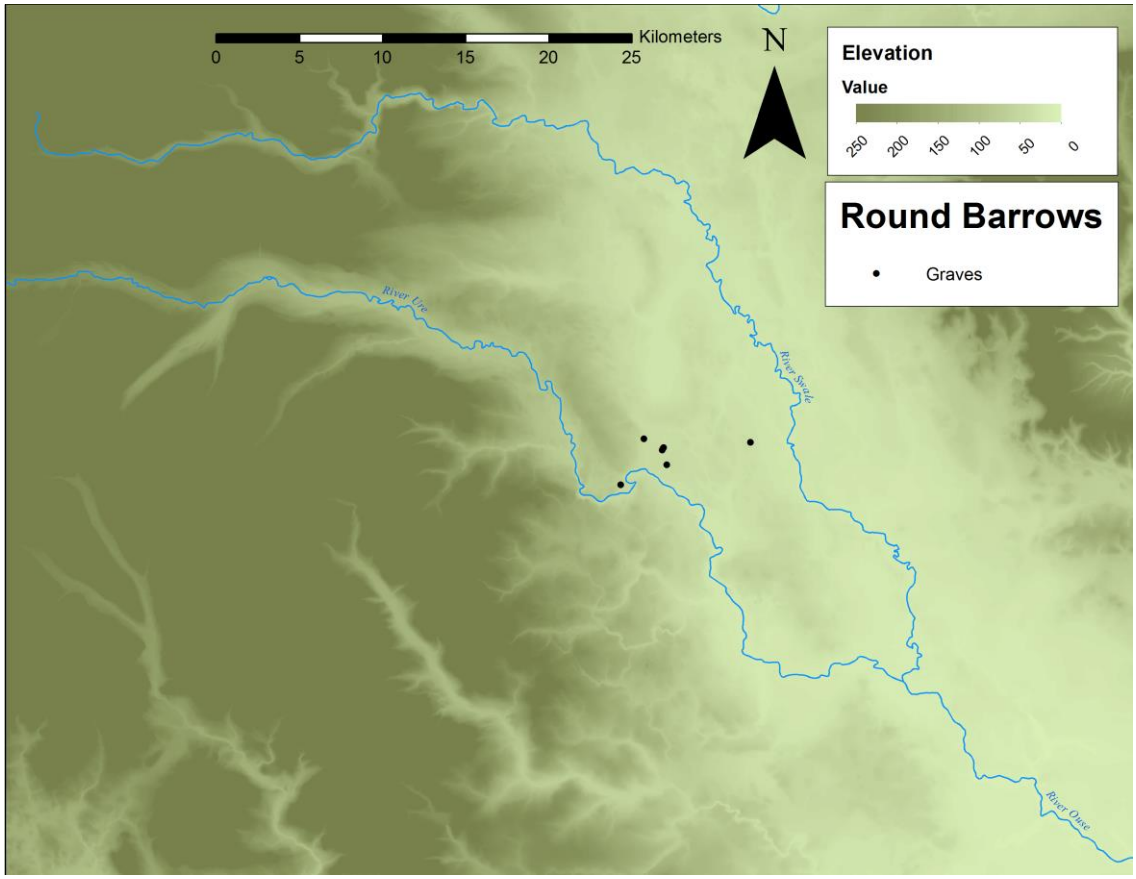

Figure 6.17: Distribution of graves in Ure-Swale interfluve round barrows

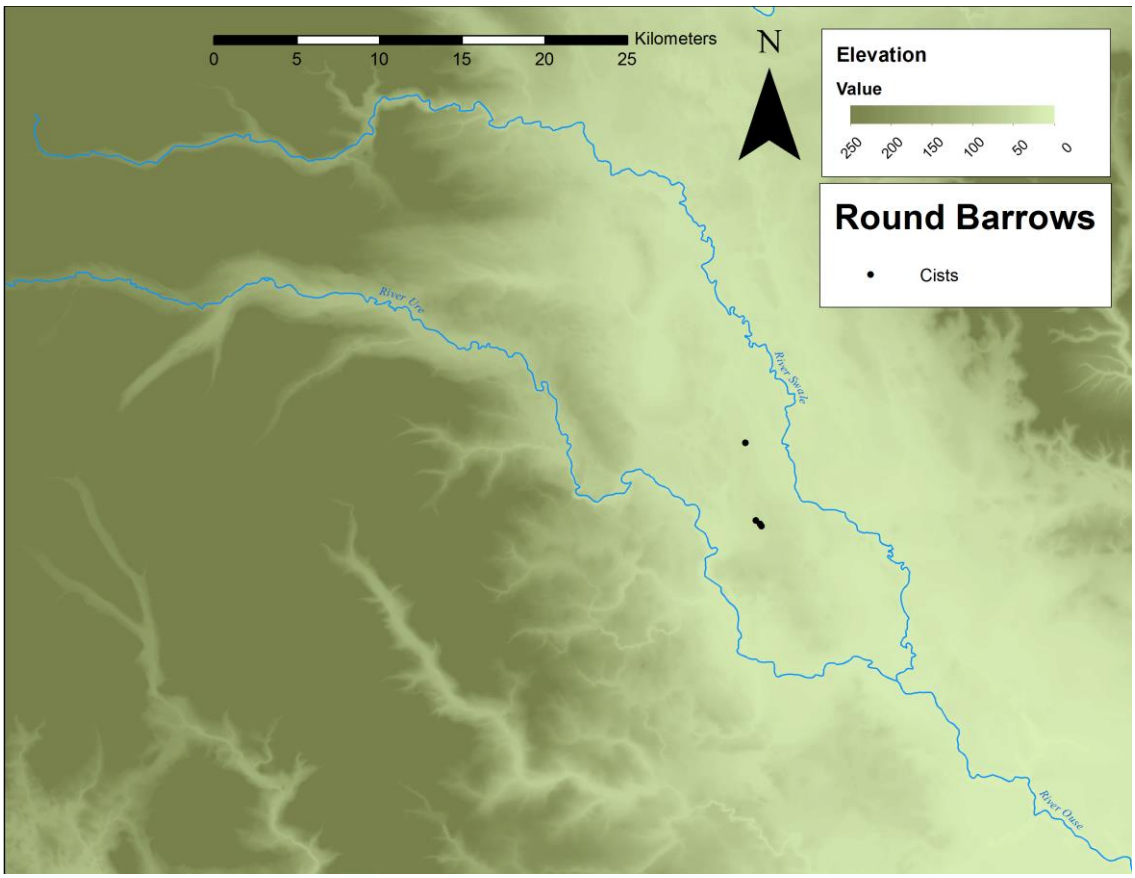

Figure 6.18: Distribution of 'cist' burials in Ure-Swale interfluve round barrows

There is a preference for graves within the Ure-Swale interfluve round barrows (Figure 6.17). Figure 6.18 shows that the 'cist' burials are grouped together. These were pits lined and covered with cobbles described in Lukis' report of the Malmesbury Common round barrows (1870). These are not the typical examples associated with Early Bronze Age mortuary practice. They resemble cairns built into pits and directly over burials. Barrows with graves are grouped around the Ure. These grave cuts are structurally prosaic. There are unique elements. The Centre Hill barrow grave was lined with gypsum, the West Tanfield grave was lined with sand, and the Three Hills graves were lined with clay. Distinct from these sites is Quernhow which featured both grave cuts and cists. Quernhow's cists were similar to the Malmesbury Common group: cobbled hollows protecting a cremation burials. Grave cuts within the Quernhow mound contained cremations inserted later.

Evidence of discolouration attributed to heat is shown in Figure 6.19. This was attributed to the deposition of cremation burials and ashes while they were hot. Another possibility is that these cuts were flues dug beneath a cremation pyre and that

the discolouration was caused by the flow of hot air. There are only four examples in the dataset but the prevalence of cremation in the Ure-Swale interfluve raises questions. The presence of charcoal at Quernhow and the Three Hills that had evidence of searing in the grave pits. Though there is charcoal and discolouration caused by extreme heat, whether it is indicative of cremation pyres being situated near these round barrows is uncertain.

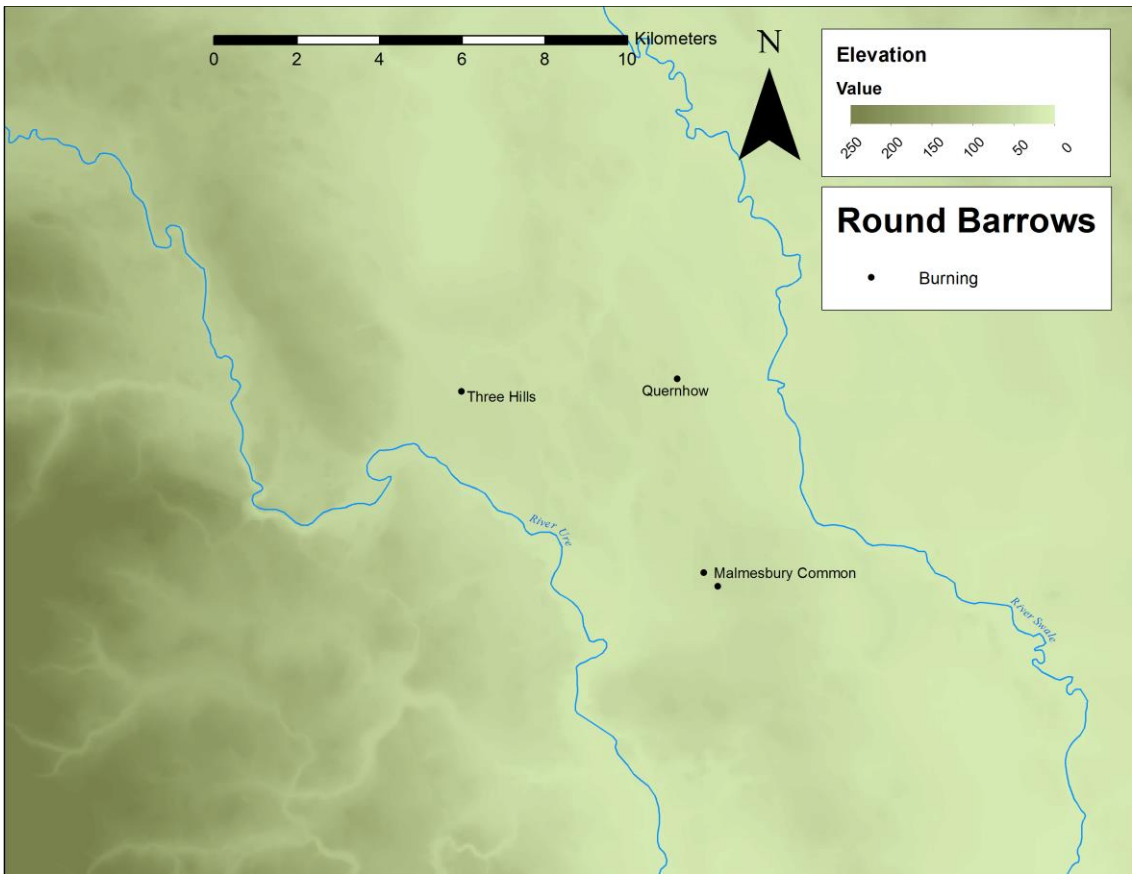

Figure 6.19: Distribution of burning in Ure-Swale interfluve round barrows

Regarding the evidence of burial practices in the Ure-Swale, it appears that different burial practices in general are geographically focused (see Figure 6.13, Figure 6.17 and Figure 6.18). There are a number of anomalies emerging through burial practice. Both Quernhow and Stapley Hill are unique sites with links outside the interfluve. Despite the presence of cremation burial, there is evidence to connect round mounds with pyres through the evidence of charcoal and grave discolouration but no surety that the burial of the dead and transition of the dead was taking place at the exact spot. Examining Table 6.3, there are only one or two burials placed before a mound is built. The exception is Quernhow but this site had more remains than the other round

barrows. Secondary burial is limited to a few sites within close proximity: Quernhow, Stapley Hill, and the Three Hills barrows.

6.6. Conclusion

Returning to Figure 6.1, there is a definite concentration of sites around the Thornborough monument complex and the henges at Nunwick, Cana Barn and Hutton Moor, and Catterick. In their synthesis of the archaeology of the Late Neolithic and Early Bronze Age period, Bridgland *et al*. (2011) propose that the initial focus of the round barrow landscape was around pre-existing monuments that provided centres in the lowlands. Later in the Early Bronze Age, interest in older monuments declined and consequently round barrows were situated further away. There are issues with this proposition: limitations in the data make broad scale interpretations problematic. There is very little resolution in the Ure-Swale interfluve round barrow chronology. There is one associated radiocarbon date from the Nosterfield ring-ditch (Dickson and Hopkinson, 2011). Despite Waterman's proposed sequence for Quernhow and discolouration in the graves of Grinsell 18, 20 and the central barrow of the Three Hills indicating evidence of hot cremated remains covered over in short order; the sequences and timescales of barrow burials and construction remain poorly understood. While the interpretation might be sound, it is based on assumptions from prehistoric landscapes elsewhere. It neglects the combination of topographical and geological features that give rise to this point between the Pennine Hills to the west and the Howardian Hills and the Yorkshire Wolds bordering the Vale of Pickering to the east. The terrace caused by the combination of two rivers and the gentle, rolling landscape formed by receding glaciers creates a number of points of interest in the landscape and this is reflected by the region's round barrows.

Examining the evidence, there is a geographical difference between round barrows on the Ure in terms of their compositions and the nature of the burials they contain. From Figure 6.5 earthen mounds are concentrated to the south. In contrast with the north where the majority of sites are composite mounds. Other factors relate to the placement of round barrows in the interfluve: the practice of the treatment of the dead and the placement of remains. Those factors impact the situation of a round

barrow more than the materials that they are constructed from. Those are taken from available sources from the surrounding area. This is the case with sites that incorporate elements from other round barrow sites from outside in the Ure-Swale interfluve: Centre Hill, Quernhow, and Stapley Hill. These sites draw on architectural traditions from other regions such as the Yorkshire Wolds, the North Yorkshire Moors, and the Vale of Mowbray. These barrows utilised materials that could be acquired close to their chosen site but emulated this architecture such as river cobbles in Quernhow, or oak in Stapley Hill. The placement of the round barrows was not based on access to resources for construction. The similar construction of the Three Hills and the Malmesbury Common barrows suggests that location was more important than the materials used to build mounds. This strengthens the argument put forth by Bridgland *et al* (2011). The use of gypsum at Centre Hill and the central Thornborough henge indicate another possibility. The usage of materials cemented the coffin burial as part of the henge and connected it to the monument. It has been proposed that the Thornborough complex was a major nodes in the exchange networks of the Neolithic and the Ure-Swale interfluve was a landscape of significant spiritual potency (Vyner, 2007; Harding, 2013). The location between the eastern and western halves of northern Britain made the interfluve an excellent meeting point. The importance of the landscape changed over time and the role it played became overtly spiritual. The usage of local materials in external practices related to the reproduction of those practices in round barrow building traditions carried out elsewhere.

There is a lack of burials or barrow material from a century before the turn of the second millennium BC. To provide a broad context for the round barrows in the Ure-Swale – there are two periods of activity: c. 2150 – 1700 BC and c. 1700 – 1500 BC. This is similar to the Garwood's three phases of activity for burial monuments in southern England (2007): c. 2500 – 2150 BC, c. 2150 – 1850 BC, and c. 1850 – 1500 BC. There is no evidence of this first phase; the earliest Bronze Age vessels are Food Vessel Vases and Bowls that appear at the turn of the second millennium BC.

This would place the initial burials of Three Hills, Centre Hill, Malmesbury Common, Stapley Hill, and Quernhow barrows in the first phase (c. 2150 – 1700 BC), and the

expansion of Stapley Hill and the initial Nosterfield burial in the second phase (c. 1700 – 1500 BC). The one problematic site is the central Three Hill with the deposit of an Accessory Cup which have a range of c. 2000 – 1500 BC. Most of the initial barrow construction around the Thornborough henges was between c.2100 and 1700 BC. Centre Hill was broadly contemporary to first phase of Quernhow and the first burial at Stapley Hill. These sites are not located near to a significant Neolithic monument. Close examination of the evidence from round barrows and recent chronological research does not support the theory that the Neolithic monuments were the entire initial focus for round barrows – instead, sites were situated around the lowlands but were distributed around the monument complexes. This proposal is more tenuous because of the lack of published archaeological excavation from the uplands of the interfluve.

Unanswered questions remain: the lack of artefacts in round barrows other than small flint items and pottery vessels in contrast with the number of find spots situated around the interfluve, and the location of cremations in the Ure-Swale. The nature of the searing in round barrow graves and the presence of charcoal suggest that this not far from the burials. A possibility could be that the cremation was intended to be a private enclosed affair relating to access and mediation of the burial practices. This relates to the poverty of artefacts associated with the burials. These were excluded from the exchange networks by the living who mediated access to those outside the interfluve. The relationship between this spiritually-potent landscape and the realm of ancestors might negate the necessity of providing goods needed for the passage into the afterlife.

Chapter 7. Case study 3: the Howardian Hills

7.1. Introduction

The Howardian Hills bridge the Wolds with the Hambleton Hills and North Yorkshire Moors. From excavation and the available evidence, the majority of round date from c. 2000 BC onwards that makes these sites an interesting counterpoint to the Upper Wold Valley and the Ure-Swale interfluve where the majority of the round barrows date to c. 2150-1750 BC. The area is dominated by cremation burial associated with Collared Urns – the rites of burial and monument building have a much shorter sequence than the other case study landscapes. In the Howardian Hills mounds were erected rapidly after the placement of the dead or the cremation rite.

Figure 7.1: The Howardian Hills from the Vale of Pickering

Compared topographically to the Wolds or the Cleveland Hills, the Howardian Hills are low-lying at 170 metres OD but they overlook the Vale of York to the west and the Vale of Pickering to the east (see Figure 7.1 and Figure 7.2). The Hills are undulating ridges and valleys that contain a mixture of woodland and fens as well as arable and pasture land (see Figure 7.3). In many places the Howardian Hills were carefully managed by the various estates all over the landscape over the past three-hundred years. There is substantial evidence that some sites in the dataset are follies produced in historical times.

Figure 7.2: The view of the Vale of Pickering from the Howardian Hills

Figure 7.3: Westerly view across the Howardian Hills

Natural England defined the Howardian Hills as one of the natural character areas based on these features as well as local flora and fauna and their boundaries are shown in Figure 7.4. The landscape area defined by the British Geological Survey focuses on the spur of higher ground emerging west of the Derwent and points west towards the Vale of Mowbray.

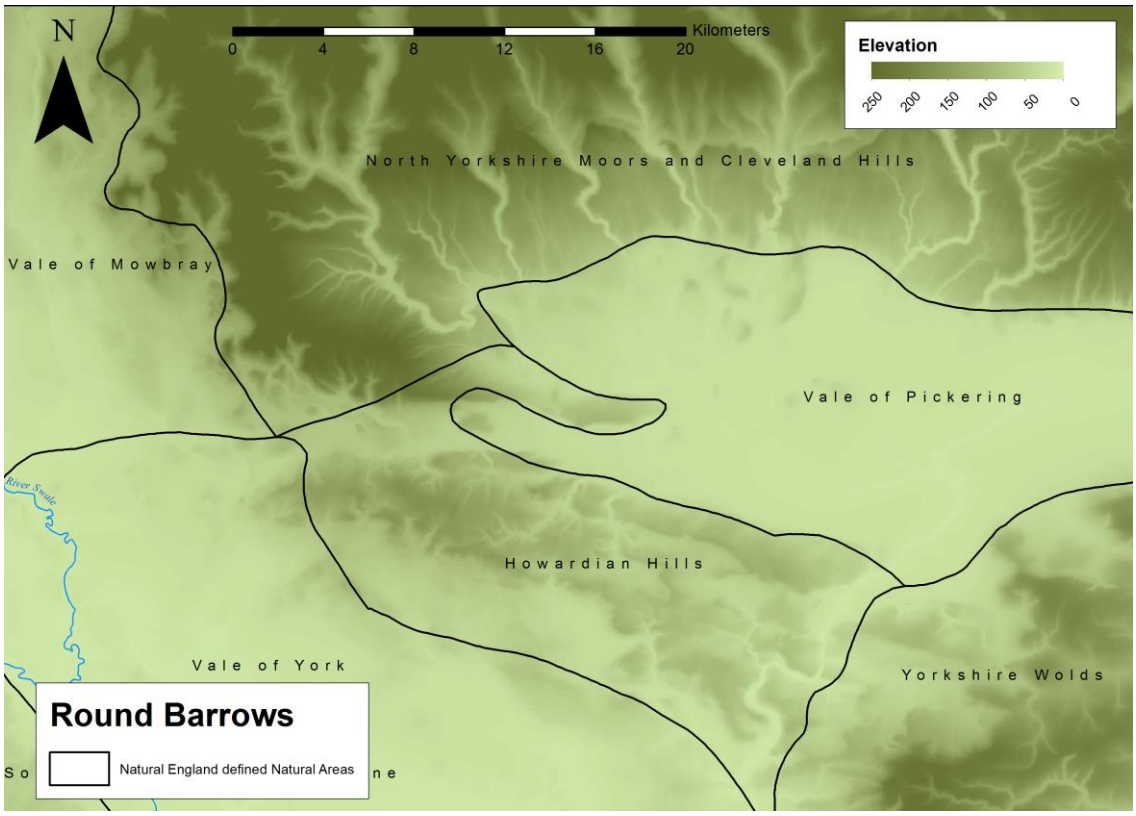

Figure 7.4: Natural England defined Natural Areas

This limits the potential data as the Natural England borders contain recent excavations carried out by Powesland (1986). These barrows are closer to the North Yorkshire Moor and lie on completely different geology to the rest of the excavated round barrows in the Hills. The Powesland sites were incorporated and discussed in Smith's (1994) corpus of round barrow excavation that focused on the North Yorkshire Moors. The round barrows from the dataset are shown in Figure 7.5. The dataset contains 105 potential sites and 20 round barrows with recorded excavations. Most of these sites were excavated by Greenwell between 1864 and 1865 (Greenwell, 1877). Another site was ostensibly a natural mound but contained the remains of a Food Vessel and a Collared Urn. These sherds were inserted into the natural mound which was expanded and reinforced. This site was excavated in 1961 (Stead, 1966).

Greenwell 2, and Greenwell 132-151 in the dataset are a number of sand-built round barrows that contained cremation burials associated with Collared Urns. English Heritage examined the area as part of their National Mapping Project and discovered ring-ditches through aerial survey that were interpreted as round barrows (Carter, 1995).

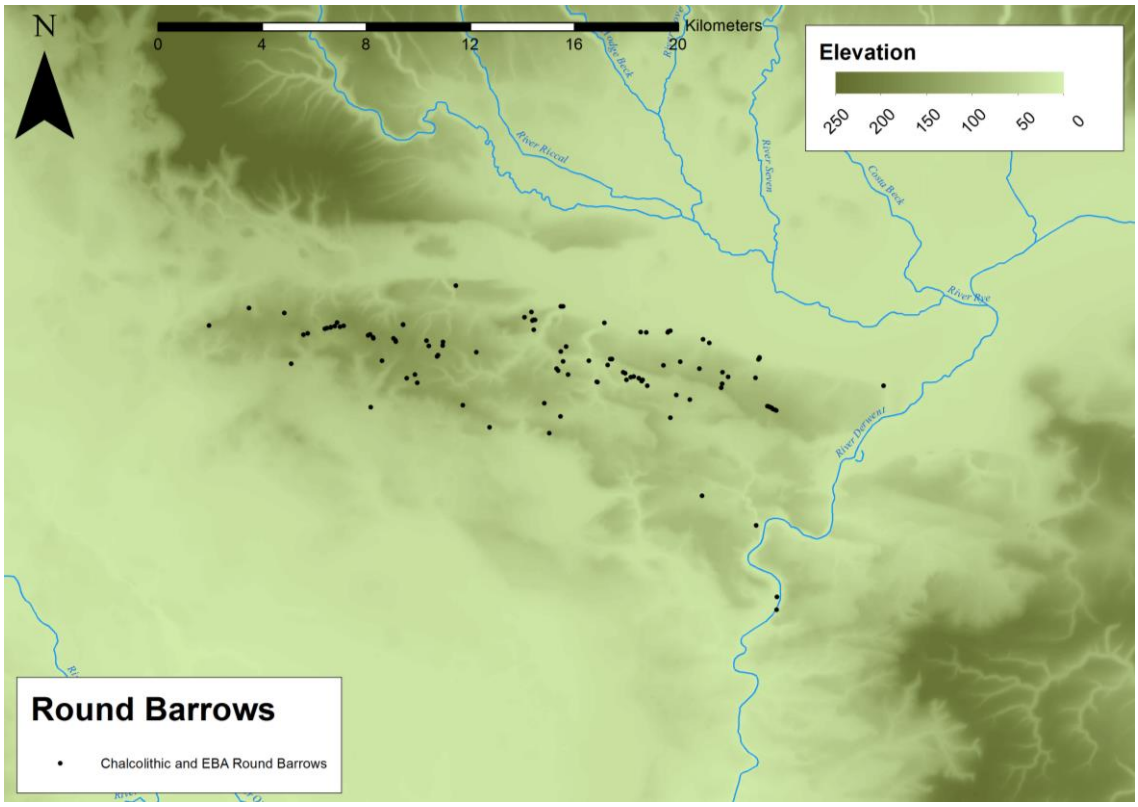

Figure 7.5: Distribution of round barrows in the Howardian Hills

7.2. Geology and archaeological background

The Howardian Hills formed during the Jurassic period and consists of folded crevasses of limestone and sandstone, and Cretaceous chalk in the base of many of the valleys. These are surrounded by glacial deposits of till and clay. The hills possess little drift geology aside from small deposits of sand and gravel at the easternmost tip and the north. Topographically the Howardians are lower lying than the Wolds and the Clevelands. They form a platform above the Vales of York and Mowbray to the east and the Vale of Pickering to the west. It is not totally impassable as smaller river valleys caused by tributaries formed in the uplands of the Howardians enable crossing between the Vales of Pickering and York.

The National Mapping Project (Carter, 1995) revealed potential round barrows in the area. The context and nature of the sites from the 19th Century is poorly understood because of the lack of excavation since the 1960s. There were few excavations prior to Greenwell's excavations in the Howardian Hills. Two round barrow openings are recorded in Whellan and Sheahan (1859b). Both these sites were discovered and explored in 1855 but neither were properly excavated. The first was discovered and opened when the Malton Reformatory was extended revealing a possible cist burial. The other site on Oulston Moor contained no burial and was interpreted as a beacon mound. With no knowledge of the architectural features, stratigraphy, associated artefacts, or even clear burial practice, these sites are not counted for the purpose of examining the excavated round barrows in the Howardian Hills.

There are nearby Neolithic barrows with recorded excavations. The majority of these are situated east of the Derwent in the hills below the escarpment of the Yorkshire Wolds. These sites resemble the round barrows in the Upper Wolds Valley. Greenwell excavated two Neolithic long barrows: one at Westow (Greenwell 223), and another at Gilling/Yearsley Moor (Greenwell 233) (Greenwell, 1877, p. 491-497, 550-553). The Westow long barrow contained a variety of inhumed remains placed in two phases. The first phase at the centre of the barrow contained five adult burials (two female inhumations, some bones of a male, and two unknown), and the remains of two children. Another four burials were inserted into the mound: two adult females and a child burial in separate cists and disturbed human bones near to one of the adult burials. There was no evidence of any disturbance after these interments and no presence of Early Bronze Age artefacts in the long barrow. Greenwell 233 contained an adult inhumation associated with a Food Vessel Vase, flint and a chert plano-convex knife. The long barrow was similar in structure to many later round barrows composed of sand containing an internal kerb.

Mortimer excavated a Neolithic round barrow: Hedon Howe (number 281 in Forty Years Researches (1905, p. 346-350)). This site was overgrown by trees but the mound consisted of soil and five cists arranged in a cruciform. The central cist contained Neolithic remains and a typical Towthorpe bowl but during the Early Bronze Age period

they were removed and scattered. A crouched inhumation was placed in the cist with a Food Vessel vase and the other remains in the cist were pushed aside (Mortimer, 1905, p. 347-348). This was not the only post-Neolithic burial in Hedon Howe; a child inhumation was placed with a Long-Necked Beaker vessel on the north side of the westernmost cist. Mortimer highlighted the cists had been raised then the mound added later in the sequence (1905, p. 350).

Whitegrounds was another Neolithic round barrow excavated by Brewster (1984) in 1968. Located close to Hedon Howe and Greenwell 223, it was a dual-phase monument badly degraded at the time of excavation. Brewster recovered an inhumation in the upper layers accompanied by a Seamer-type axe and jet belt-slider inserted into the sand-built primary mound. Underneath the mound was a stone-lined structure that was Neolithic in origin. At some point after the Seamer burial, the mound was expanded further with a stone capping (Brewster, 1984).

There have been no Neolithic round barrows excavated within the Howardian Hills proper and excavation has been focused in two discrete clusters of sites investigated by Greenwell (1877), and the single site excavated by Stead (1966).

7.3. Round barrow mound composition and architecture

The recent English Heritage mapping project of the Howardian Hills thoroughly surveyed and the composition of many barrow mounds has been recorded. From Figure 7.6 below, there is little diversity in the composition of round barrows in the Howardian Hills. Round cairns are entirely absent from this dataset. There is a strong presence of both earthen (32 sites), and composite barrows (31).

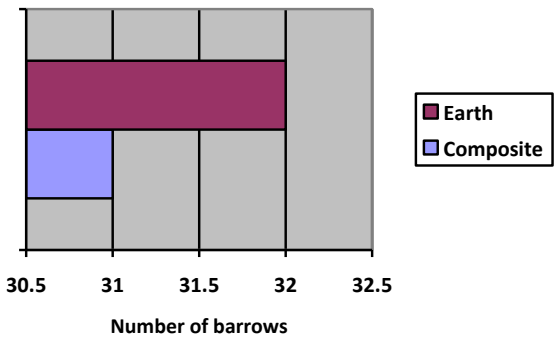

Figure 7.6: Composition of round barrows in the Howardian Hills

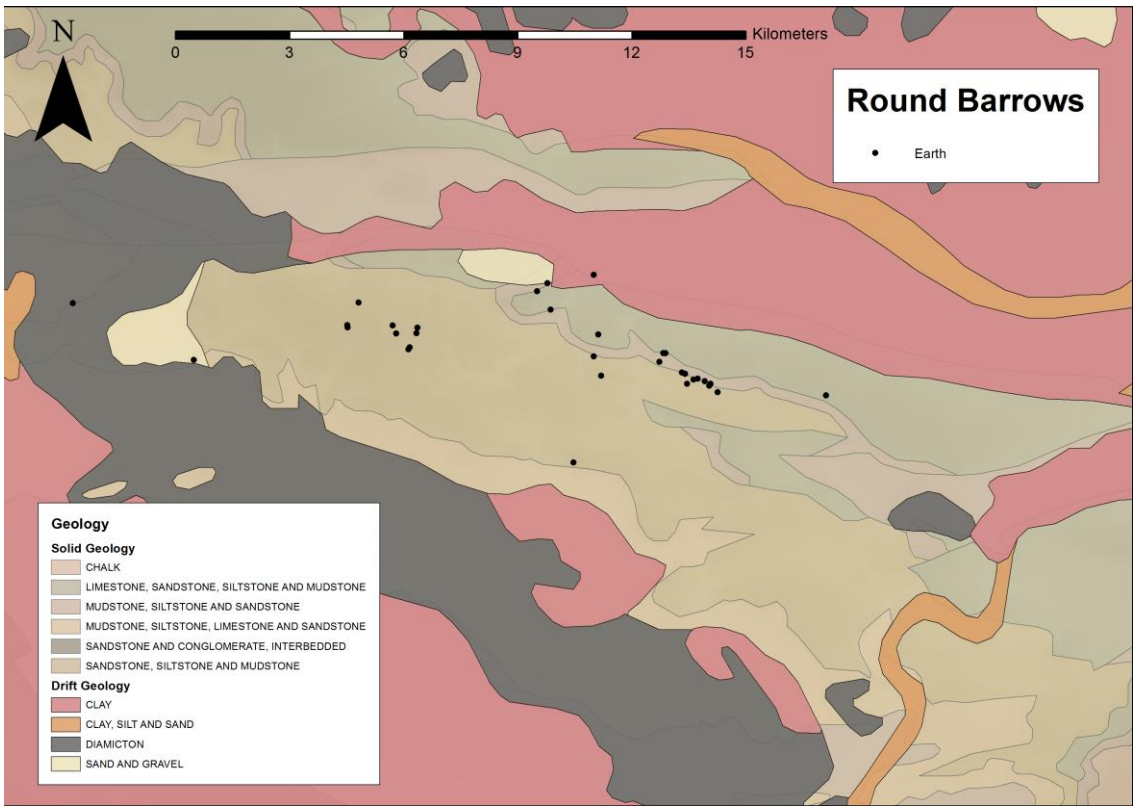

Figure 7.7: Distribution of earth round barrows overlying Howardian Hills geology

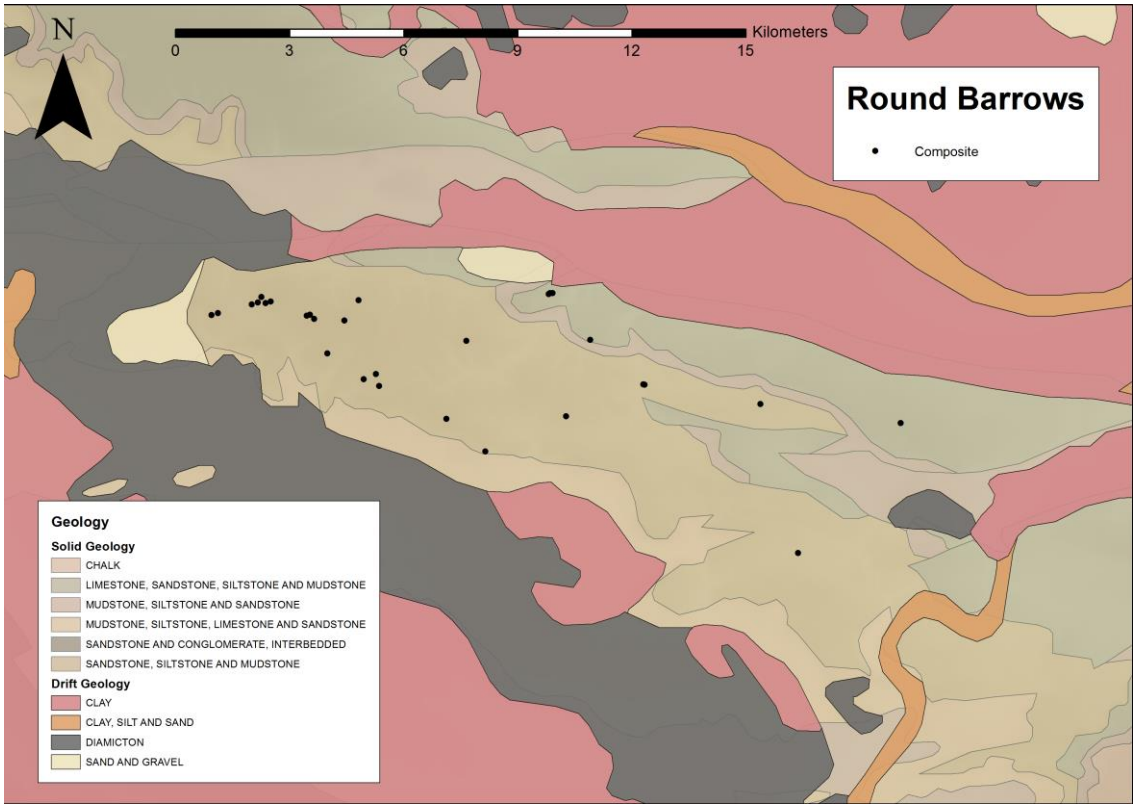

Figure 7.8: Distribution of composite round barrows overlying Howardian Hills geology

Round Barrow	Mound Composition
Greenwell 2	Earth and stone, with burning covering and internal cairn.
Greenwell 132	Sand
Greenwell 133	Sand
Greenwell 134	Sand
Greenwell 135	Sand
Greenwell 136	Sand, with stones on the east side.
Greenwell 137	Sand
Greenwell 138	Sand and clay
Greenwell 139	Sand
Greenwell 140	Burnt sand and clay, capped by sand.
Greenwell 141	Sand
Greenwell 142	Sand
Greenwell 144	Sand
Greenwell 145	Sand, reduced by ploughing.
Greenwell 151	Sand and clay, capped by earth.
Stead 1966	Natural mound added to with layers of sand and sandstone.

Table 7.1: Detailed composition of Howardian Hills round barrows

In Table 7.1 there is an overwhelming use of sand in burial mounds, followed by clay, soil, or sandstone. In Greenwell 138, 140, and 151, another material was used to bind the mound together: clay intermixed with the sandy soils. Stone is used in a minority of round barrows: Greenwell 2 and 136, and Stead 1966. There is little evidence of more complex stratigraphy and mound structure elsewhere: Greenwell 2 has an internal cairn with a composite layer above it. Greenwell 140 has a sand and clay composite that was capped over by sand, and Greenwell 151 had an earthen cap (Greenwell, 1877). Stead's natural mound had additional layers of sand added to it and was reinforced by sandstone (Stead, 1966). The lack of human remains from that barrow could mean that the site was not a round barrow or it was not intended for the burial of the dead. The remains in Stead 1966 could have degraded over time or were

not recovered by excavation. The barrow could have been for the dead but not intended for their interment acting as a cenotaph. A natural site's expansion and reinforcement in a similar manner to other round barrows in the area is significant and it remains part of the dataset.

Sourcing the material for these barrow mounds would not have been difficult (see Figure 7.7 and Figure 7.8. There are beds of sand and gravel on the Howardian Hills which are comprised of sandstone and surrounded by beds of clay and till. Closer to the surface, the River Derwent runs through clay, silt, and sand channels ideal for sourcing these materials in the landscape. There are significant beds of sand and gravel to the north and east of where the various sandstone combinations that form the solid geology emerges.

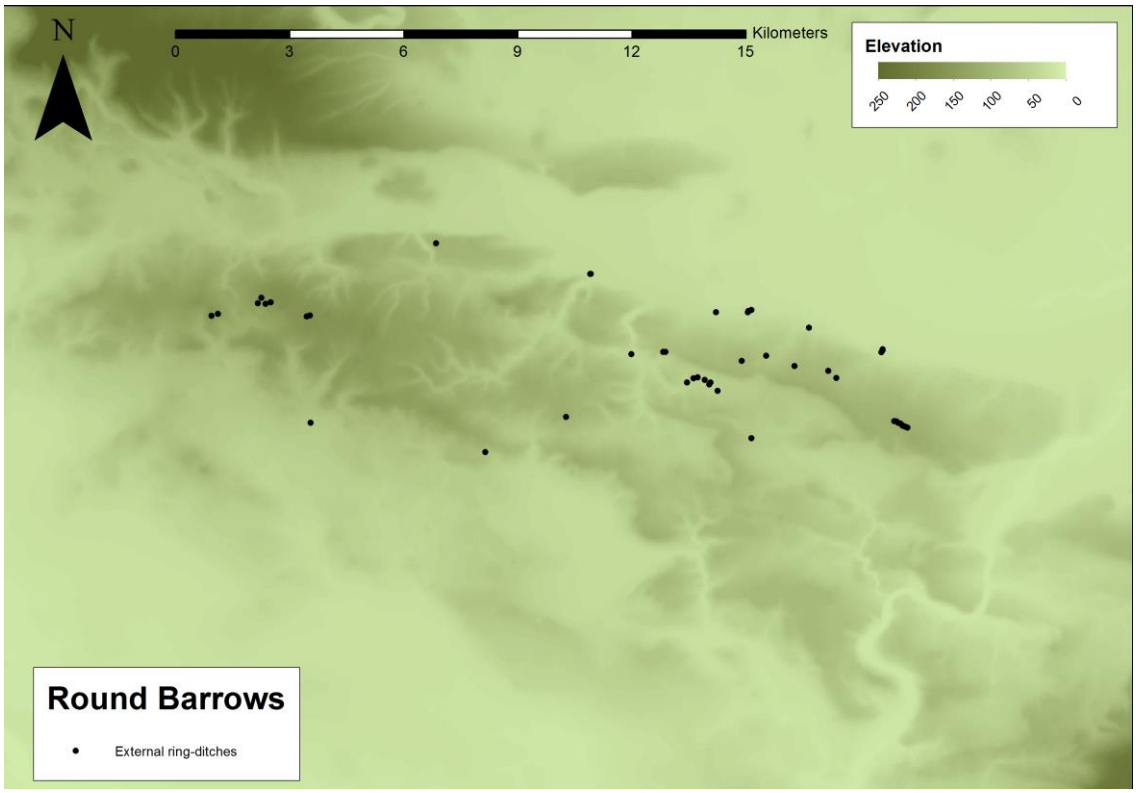

Figure 7.9: Distribution of Howardian Hills ring-ditches

There is evidence of expansion: ring-ditches and kerbs have been interpreted as reinforcement structures for the burial mound of a round barrow. These features beneath the mound indicate expansion during the round barrow sequence. In particular where there are internal and external ring-ditches and kerbs demonstrate an expansion of the mound in distinct phases.

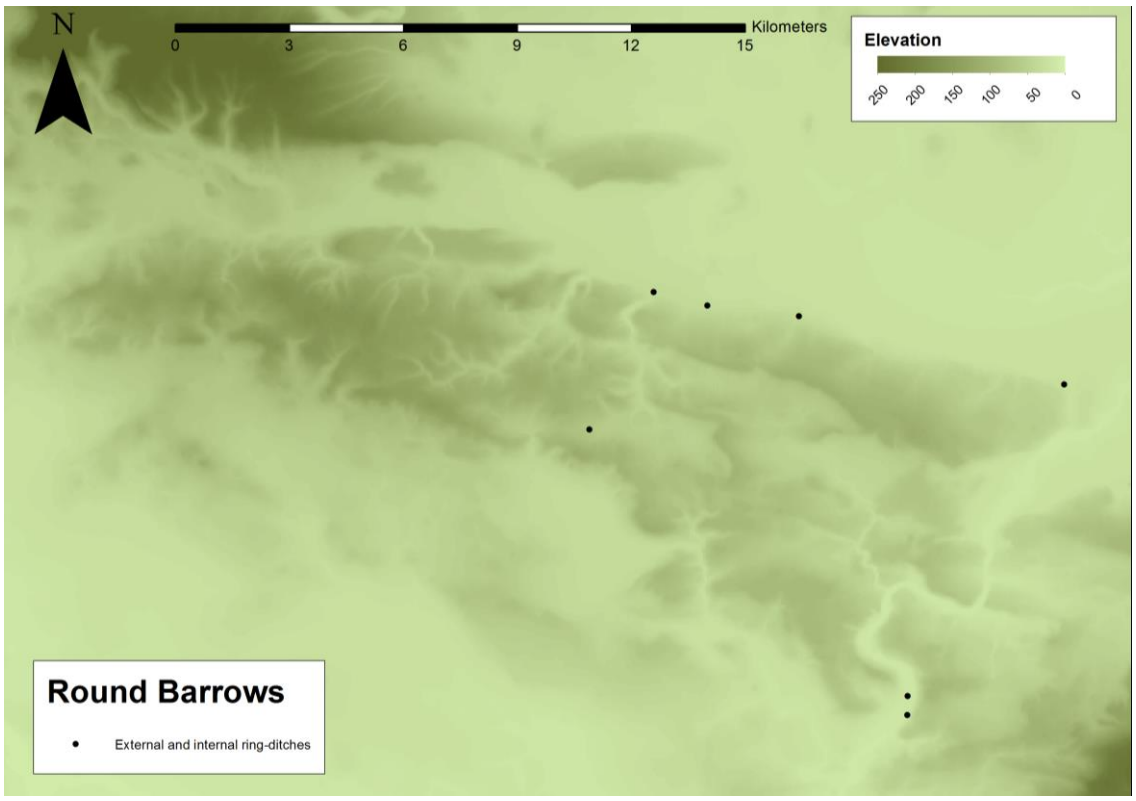

Figure 7.10: Distribution of concentric ring-ditches in the Howardian Hills

Concentric ring-ditches are focused in the eastern part of the Howardian Hills (see Figure 7.10). There are a number of concentric ring-ditches along the northern edge of the Hills overlooking the Vale of Pickering. These sites are focused along those areas that overlook lower-lying ground and which are nearer to the Wolds. A number of sites are on the banks of the River Derwent close to Neolithic barrows. This indicates an affinity to the round barrows of the Wolds where ring-ditches are predominant around burial mounds.

There are few examples of round barrows with an external kerb in the Howardian Hills and only one with an internal kerb (Figure 7.11). They are sited away from the edges of the hills along the central spine of the Hills. Considering the area's proximity to the North Yorkshire Moors, it is interesting that there are not more kerbed round barrows and that they are not situated further north. The sole site with an internal kerb is in the north-west of the Howardian Hills mimicking the relationship with the ring-ditches in the Yorkshire Wolds. Kerbs are more northerly focused and ring-ditches are more southerly focused. There is a geographical tradition with those two architectural trends.

Figure 7.11: Distribution of kerbs in the Howardian Hills

Other architectural variations such as stake-circles are not present in the Howardian Hills. Summarising the Howardian Hills mound construction and round barrow architecture shows that the area is similar to the other case studies. The materials for round barrow mound construction were sourced from the sand and gravel beds or the sandy soils that cover the Howardian Hills. On a more general level, there were no cairns in the study area and stone is rarely used in the Howardian Hills' round barrows Considering the paucity of kerbs in comparison to the ring-ditches, it would appear that in structural terms that there is a different tradition to the North Yorkshire Moors' round barrows.

7.4. Artefact distribution

Mound composition and architecture illustrate some very broad trends in the Howardian Hills. Figure 7.12 shows the variety of pottery types in the Howardian Hills barrows, predominantly there are Collared Urns (at 7 sites), followed by Accessory Cups (5 sites). There is a Food Vessel presence (in 4 barrows) but no identified Beaker vessels (none intact or associated with human remains). From the pottery assemblage, the majority of the activity in the region can be dated to c. 2150 BC onwards. The high

presence of Collared Urns indicate that the apex of this activity was the first-quarter of the second millennium BC.

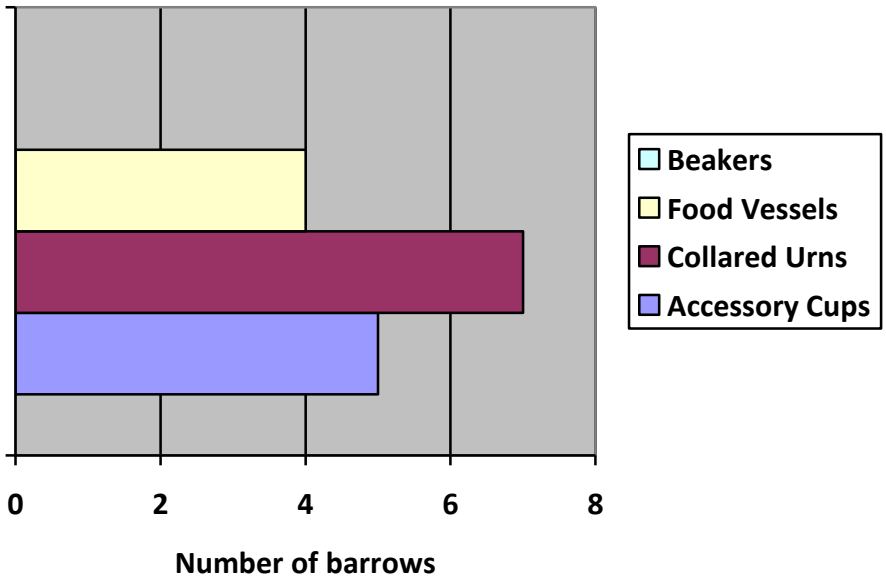

Figure 7.12: Pottery in Howardian Hills round barrows

Round Barrow	Ground Surface	Mound
Greenwell 132		1 Collared Urn
Greenwell 133		1 Collared Urn
Greenwell 136	1 Accessory Cup	
Greenwell 137	1 Food Vessel Vase	
Greenwell 138		1 Collared Urn
Greenwell 140		1 Food Vessel Vase
Greenwell 144	1 Accessory Cup	
Greenwell 145	1 Collared Urn	
Greenwell 147	1 Accessory Cup	
Greenwell 148	2 Accessory Cups	
Greenwell 149	1 Accessory Cup	
Greenwell 151		1 Collared Urn
Stead 1966		1 Food Vessel Vase 1 Collared Urn

Table 7.2: Detailed pottery finds in Howardian Hills round barrows

In Table 7.2 there is a strong Collared Urn presence across the ground surface and the mounds of round barrows. The same is true for Food Vessels. By contrast, Accessory Cups are likely to be found on the prehistoric ground surface beneath a burial mound. Both Collared Urns and Accessory Vessels have an extremely broad date range (c.

2000-1500 BC). The Food Vessel Vases identified have an earlier, overlapping range (c. 2100-1700 BC).

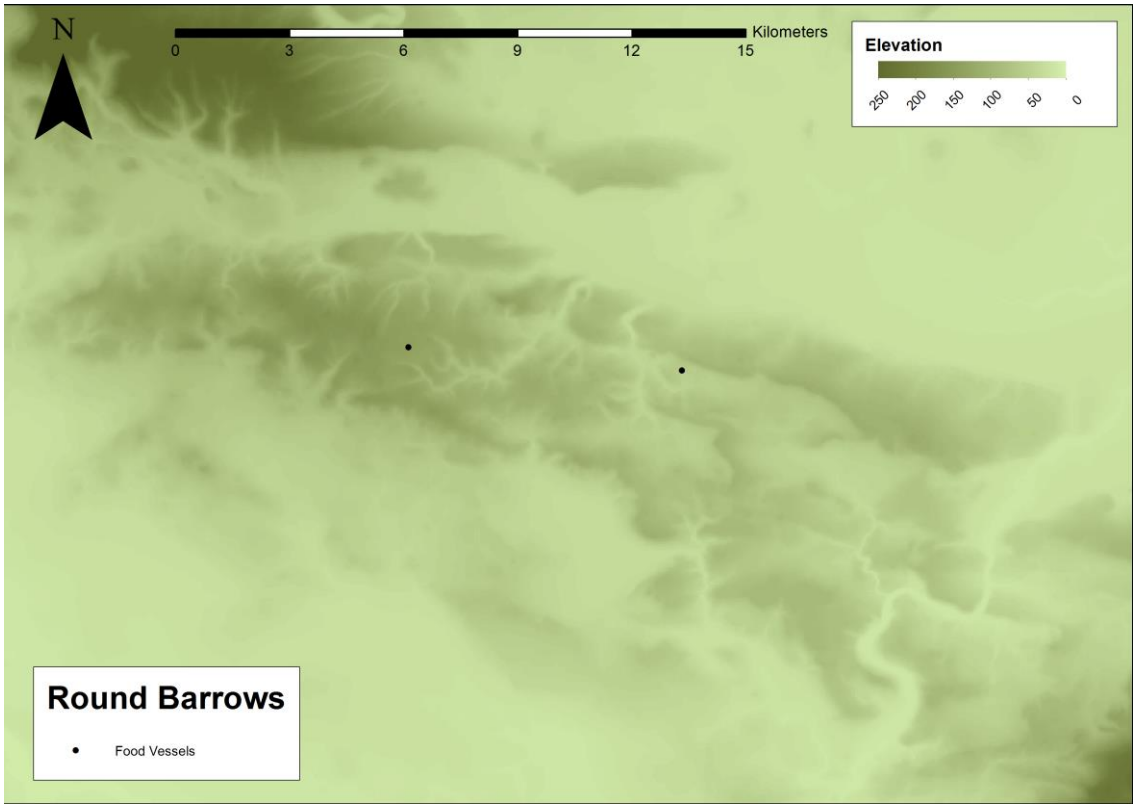

Figure 7.13: Distribution of Food Vessel burials in the Howardian Hills

Figure 7.14: Distribution of Collared Urns and Accessory Cups in the Howardian Hills

There are two distinct barrow groups that have been excavated containing recognisable pottery types: Food Vessels (Figure 7.13), Collared Urns, and Accessory Cups (Figure 7.14). Both of these groups contain a Food Vessel burial surrounded by round barrows containing Collared Urns and Accessory Cups. The western group contains 3 barrows with Collared Urns and 1 site with an Accessory Cup and the eastern cluster contains 4 Accessory Cup sites and 2 Collared Urn round barrows.

Figure 7.15 shows that non-ceramic finds in the round barrows in the Howardian Hills are scarce. There are bone and jet artefacts but objects of other materials are absent. This contrasts the Upper Wolds Valley though the absence of metalwork in round barrows was the case in the Ure-Swale interfluve. There are proportionally more objects in burials. The majority of recorded objects are located with burials in round barrows rather than being accumulated into mounds as occurs elsewhere. The majority of these round barrows were excavated by Greenwell so it is possible that artefacts outside of burial contexts were missed.

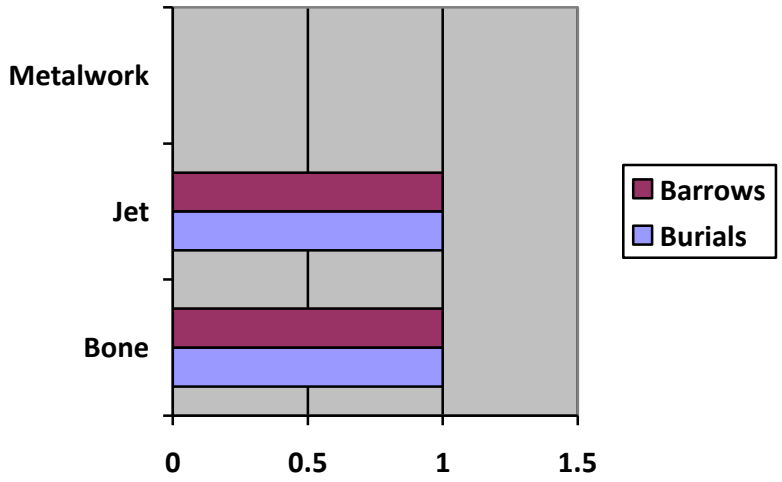

Figure 7.15: Associated finds in Howardian Hills round barrows

The majority of finds from the Howardian Hills were dominated by Collared Urns that date to c. 2000-1500 BC. There is earlier activity at Greenwell 137 and 140 which contain Food Vessel Vases (c. 2100-1700 BC). These earlier barrows initiate the sequence of activity around those sites during the first quarter of the second millennium BC. This sequence continues into the end of the Early Bronze Age with the construction of additional barrows. There is very little material culture in these round

barrows associated with the barrows or burials. This is also indicative of trends during the latter part of the Early Bronze Age elsewhere.

7.5. Burial practice and treatment of the dead

Similar to the Ure-Swale interfluve, cremation is the most significant treatment of human remains in round barrows. In Figure 7.16 there are nine times as many round barrows with cremated remains than those with inhumations. This significant difference aligns with changing mortuary practices elsewhere in Britain. Given the considerable presence of Collared Urns, Accessory Cups, and Food Vessels in the Howardian Hills this could be expected.

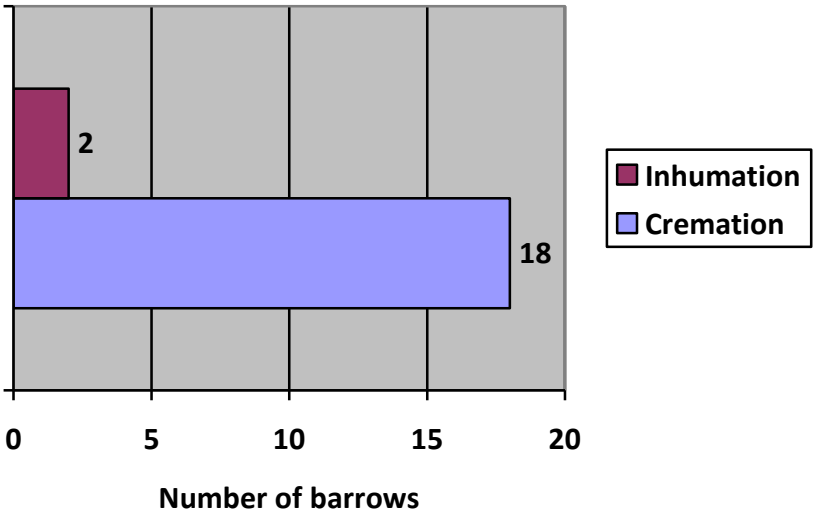

Figure 7.16: Treatment of human remains in Howardian Hills round barrows

There are two groups of barrows with the two outliers towards the south-eastern corner of the Howardian Hills. Both clusters are predominantly cremation round barrows. The easternmost cluster is focused around a site containing inhumations. The two outlying round barrows contain an inhumation and cremations. The easternmost group is situated on higher ground where they could be seen. The western cluster of sites are in one of the valley floors of the Howardian Hills as are the outliers. This second group is sheltered by a ridge to the north that would obscure them from view with the exception of three of the easternmost barrows of that group.

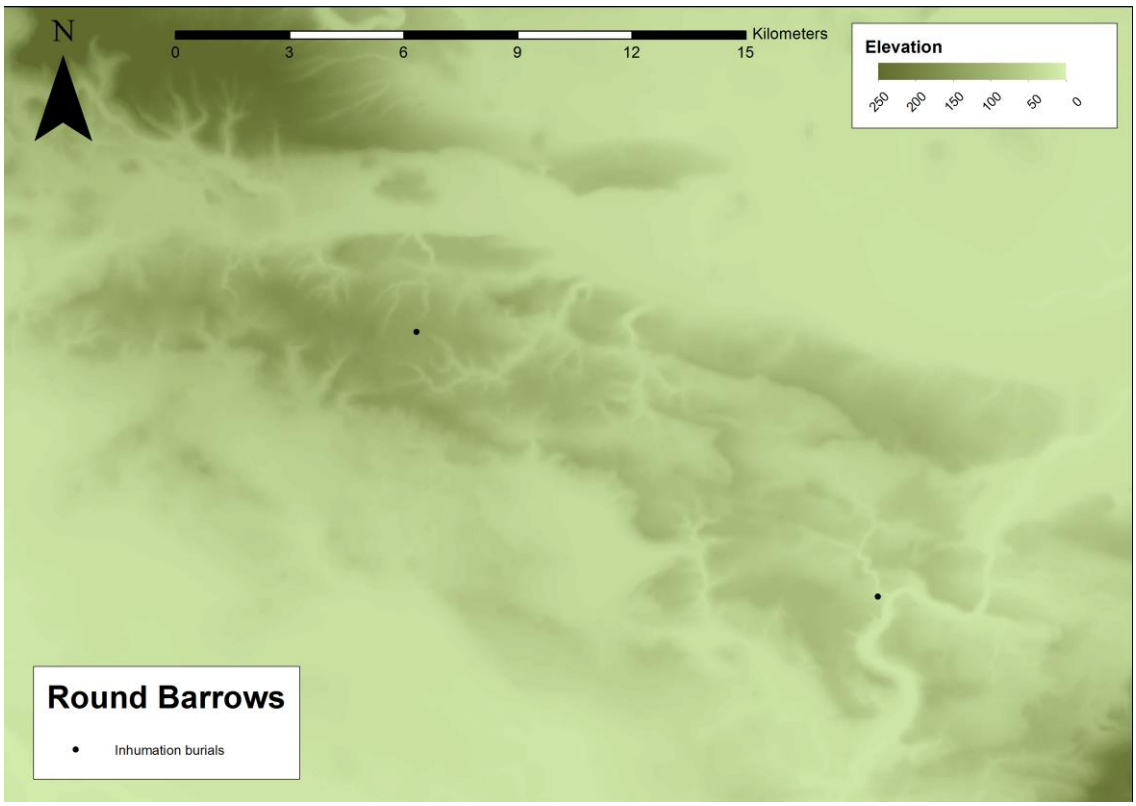

Figure 7.17: Distribution of inhumation burials in the Howardian Hills

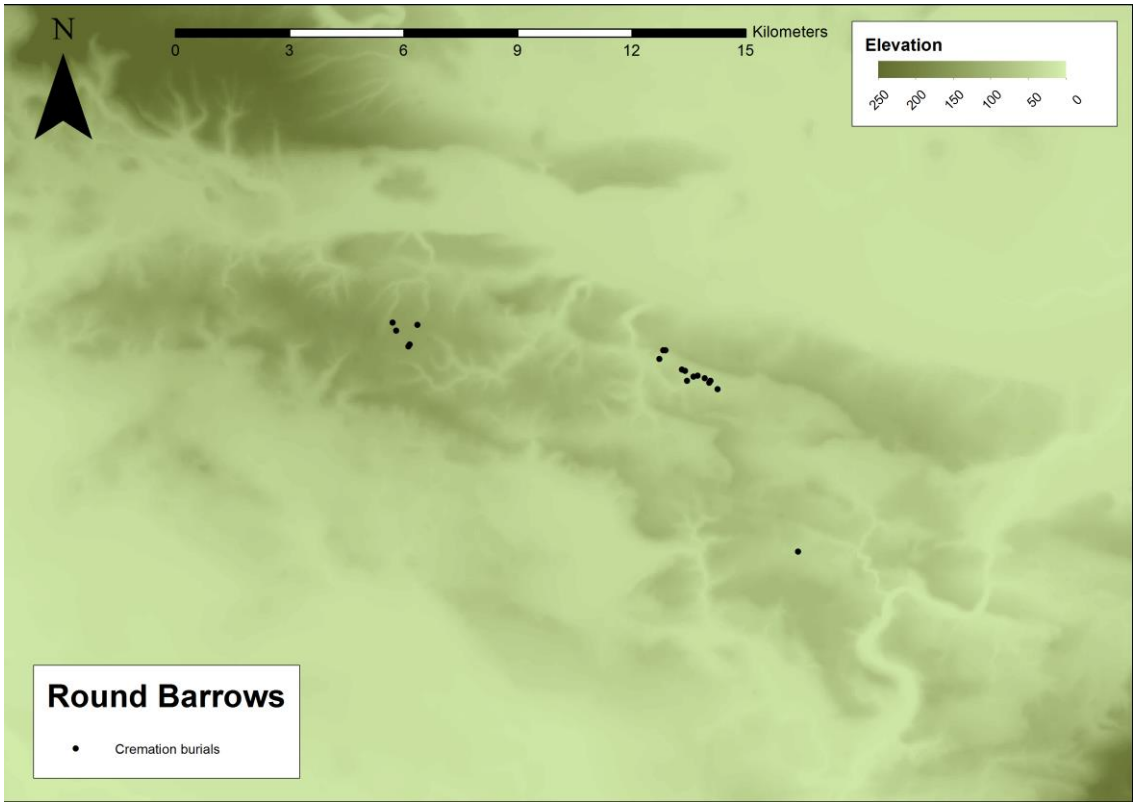

Figure 7.18: Distribution of cremation burials in the Howardian Hills

There is no overlap in the treatment of remains in Howardian Hills round barrows. No barrows include both inhumations and cremations in the Hills. This contrasts with the

other case studies where there were both types of burial within a single barrow in the ground level and the mound. There is a typical progression in Table 7.3 where all the inhumation burials in round barrows are beneath mounds. There are no other interments occurring after these initial inhumations. If these barrows had a typical sequence as seen elsewhere, there would be a cremation burial inserted into the mound. This is not the case in the Howardian Hills inhumation barrows.

Round Barrow	Ground Surface	Mound
Greenwell 2	3 Inhumations	
Greenwell 132		2 Cremations
Greenwell 133	1 Cremation	4 Cremations
Greenwell 134		1 Cremation
Greenwell 135	1 Inhumation	
Greenwell 136	1 Cremation	
Greenwell 137	1 Cremation	
Greenwell 138	1 Cremation	1 Cremation
Greenwell 139	1 Cremation	
Greenwell 140		1 Cremation
Greenwell 141	1 Cremation	
Greenwell 142	1 Cremation	
Greenwell 144	1 Cremation	
Greenwell 145	1 Cremation	2 Cremations
Greenwell 146	1 Cremation	
Greenwell 147	2 Cremations	
Greenwell 148	1 Cremation	
Greenwell 149	1 Cremation	
Greenwell 150	1 Cremation	
Greenwell 151		1 Cremation

Table 7.3: Detailed treatment of human remains in Howardian Hills round barrows

In Greenwell 2 the ground beneath the inhumations was burnt but the bodies were placed on a platform accompanied by an awl and a Collared Urn. The site was dated to the Neolithic by Manby *et al* (2003) but the mound followed the deposition of the awls and Collared Urns. This is an odd assemblage because Collared Urns are more usually associated with cremation burials. In Greenwell 2 they are associated with crouched inhumations. A practice that is commonly associated with the turn of the second millennium BC. From the evidence of barrow and despite its proximity to a number of Neolithic burial mounds, Greenwell 2 is not a Neolithic barrow. The barrow could have begun as a cluster of early second millennium BC cist burials that were amended in the

latter part of the Early Bronze Age by the addition of grave goods and the construction of a mound. Another possibility is that the site could have been in use for some time in a different capacity and the burials and the mound were added during the latter Early Bronze Age (c. 1750-1500 BC).

Greenwell 135 contained an inhumation burial in a cist and a mound constructed over it. There were no identifiable grave goods to date the placement of the remains. The stratigraphy of Greenwell 135 indicates a single phase of construction. The lack of artefacts recorded in the burial mound corroborates this making it extremely difficult to contextualise. Utilising the data from Greenwell 2 and the other recorded sites, it could be argued that Greenwell 135 is contemporary with the other barrows in this dataset. The second interpretation for Greenwell 2 would be much more appropriately applied here: Greenwell 135 began as a flat cist-burial that had a mound added to it later. Most probably when the other round barrow cremations were taking place and being expanded.

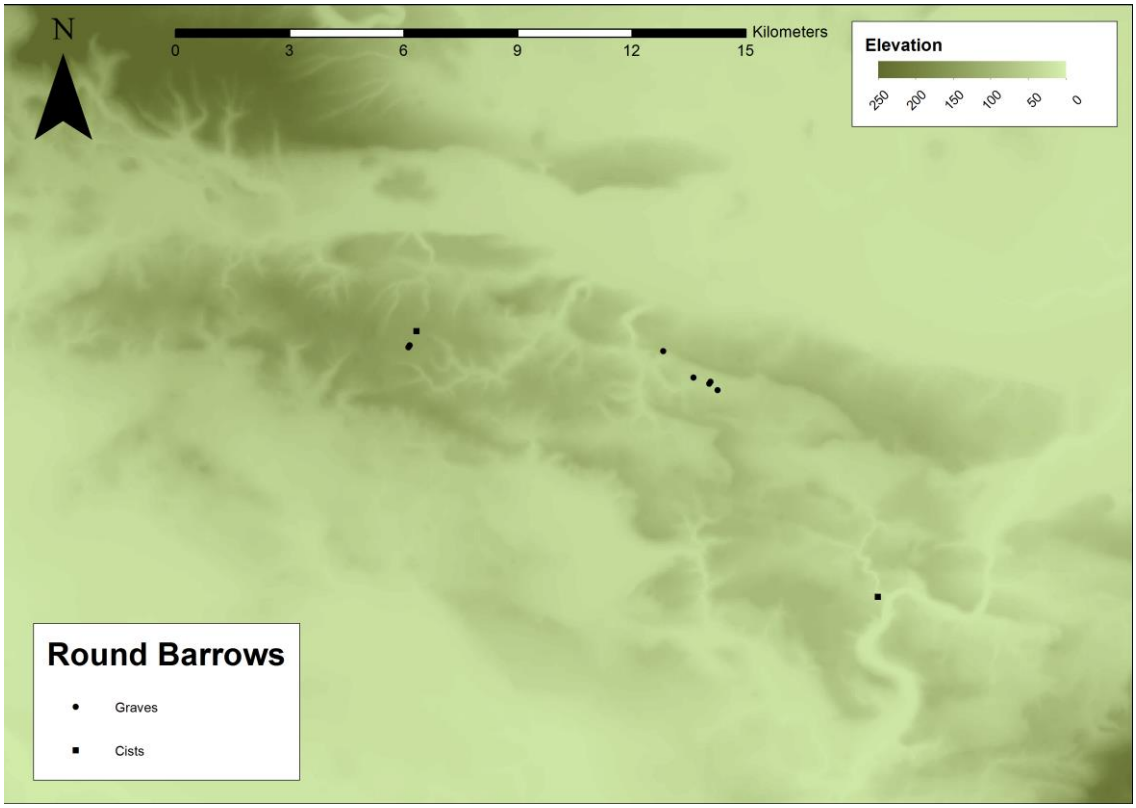

Figure 7.19: Distribution of graves and cists in the Howardian Hills

From Figure 7.19 there are few cist burials in contrast with grave cuts. This is not surprising as the sandy soils throughout the region are much easier to dig. The

connection of cist burials to kerbs and cairns in Yorkshire would explain their absence in the Howardian Hills but the only two cist burials are those sites discussed above: Greenwell 2 and 135.

It appears that cremation burials are most likely to be associated with graves in the Howardian Hills. This may have more to do with local geology and soils and the ubiquity of cremation practice in the region. Barrows are distributed in the two clusters discussed earlier, the first located around a single cist inhumation and the second set of graves in the small basin in the eastern part of the hills. The role of cremation in the ground surface of round barrows in the Ure-Swale interfluve was similar with evidence of cremated human remains placed in pits soon after burning.

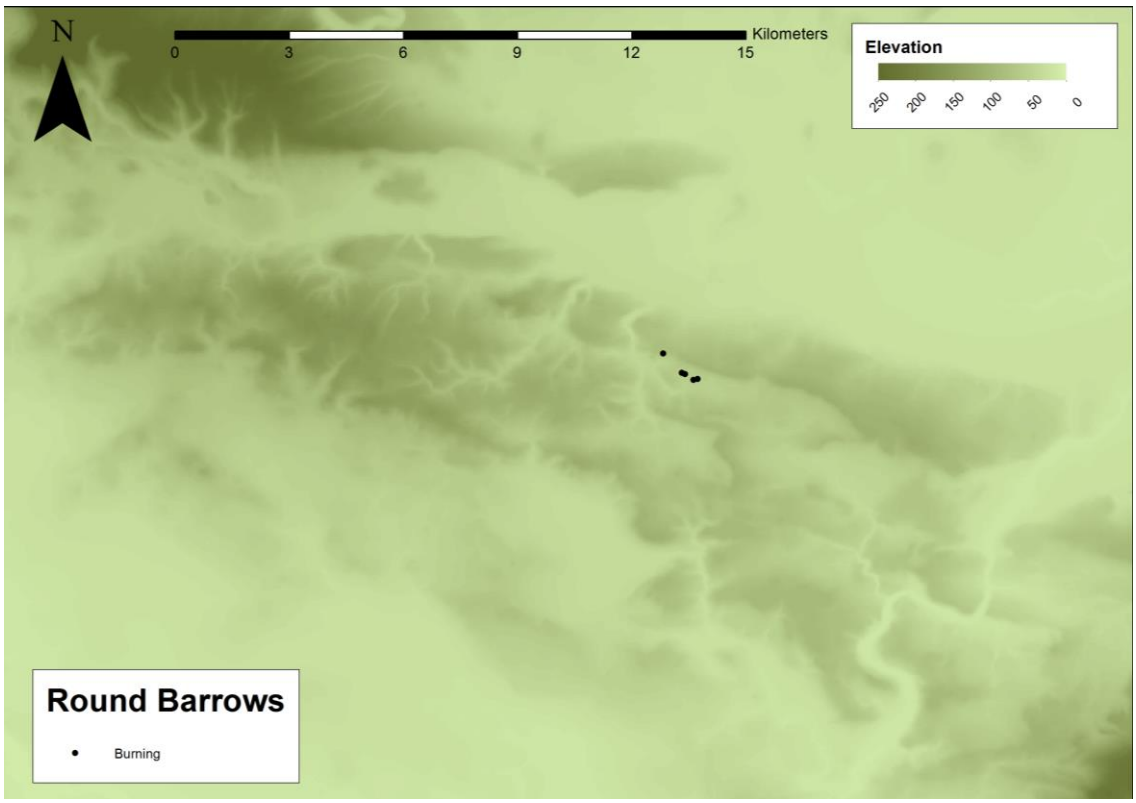

Figure 7.20: Distribution of evidence of burning in Howardian Hills round barrows

The role of burning in barrows is shown in Figure 7.20 which is focused on the easternmost group excavated by Greenwell. All of these barrows are lower-lying than the rest in the Howardian Hills, the role of spectacle in cremation practice is diminished. The distant view of the fire would be obstructed by the rolling landscape around the barrows. The smoke from the pyre as a signifier would be much more practicable. These spectacles were not intended to be witnessed by all but directly

witnessed by a smaller group with the smoke from the pyre indicating that these activities were being carried by the wider community. In many respects, this is similar to Mizoguchi's hypotheses regarding the transition from inhumation to cremation practice in the Yorkshire Wolds (1993). It is significant that the cremation rites (if not the actual burials themselves) took place in secluded lowland areas in the Howardian Hills.

7.6. Conclusion

The Howardian Hills data bears a great deal of similarity to the Upper Wolds Valley and the Ure-Swale interfluve. There are a number of limitations with this material: there are only two excavators: Greenwell (1877), and Stead (1966), even more than the Ure-Swale interfluve the region is chronically under-studied aside from the recent National Mapping Project (Carter, 1995).

For the available excavated material, the presence of Collared Urns would place many of the burials in the Howardian Hills in the range of c.1900-1500 BC. The presence of a Food Vessel Vase in the burial in Greenwell 137 and the insertion of another Vase into Stead 1966 suggests that there was activity c. 2100-1700 BC. The majority of barrow activity taking place peaks at the second quarter of the second millennium BC. In terms of other barrow features, there is not a close relationship with the practices that are common to the North Yorkshire Moors such as cairn mounds, kerbs, and cist burials. The latter are found in small numbers considering their proximity to the region though those practices are integrated into the local traditions such as Greenwell 2 and Greenwell 135. These could have been early second millennium BC flat cists which had mid-second millennium BC objects and mounds added to them later. Were it not for their location and later artefact associations then it would be tempting to associate these sites with Hedon Howe and Whitegrounds on the far side of the river.

It appears that the Upper Wolds Valley was connected to the Howardian Hills barrows in some manner. Returning to these sites was a recurrent theme of the Early Bronze Age but it appears that other barrows were not as tied explicitly to the past as others in the area. The easternmost cluster excavated by Greenwell shows evidence of burning at mounds and was dominated entirely by cremation practices. The area

contained a reinforced natural mound with the deposited remains of a Food Vessel and a Collared Urn. It is clear that some connection to the past is important but not overriding in this case. For the creation of a significant site, ‘sanctification’ is necessary to make the space appropriate for the cremation rites taking place there. That secluded area is a centre for cremating human remains in the region. This was a shorter case study than the previous two chapters due to the quality of the data available for the region. One of the aims was to investigate an area without the overwhelming burden of literature and use the available data to stress test the validity of this thesis’ approach. The overall success of this is discussed in the concluding chapters.

Chapter 8. Discussion

8.1. Introduction

There are distinct differences between the overall patterns emerging between the Yorkshire round barrows as a whole and the individual study areas. Approaching the material from the wider ranging perspective across the whole of Yorkshire produced an initial model of the patterns that would emerge through the more fine-grained analysis. On an individual basis, the results did not mesh completely with the individual case studies.

Throughout Yorkshire, the typical round barrow contained earth, be it soil, clay, or sand, and was surrounded by a ring-ditch. Architecturally there is a strong relationship between the stone-built mounds or cairns and burial mounds constructed with a mixture of earth and stone. These two composition types shared the same architectural features. Kerbs were not as common as ring-ditches and were more likely to be associated with mounds that contained an element of stone. Features such as stake circles were extremely rare in the available data but focused on the landscape of the Wolds. In terms of burial practice, round barrows in Yorkshire were more likely to contain inhumations than cremations. Evidence of burning was present in a number of sites in the dataset associated with cremation practice. There was also a prevalence of artefacts associated with the burial of the dead such as Beaker and Food Vessel pottery. The most common type of pottery found in the dataset were Collared Urns but the most common pottery associated with burials were Food Vessels. The sequence outlined by the data from the region points to eastern Yorkshire as the initial focus of activity with earlier Beakers in both the Wolds and the North Yorkshire Moors. The apex of round barrow building occurs in Yorkshire c. 2200/2150 BC onwards with the spread of Food Vessels throughout the entire region but the concentration on eastern Yorkshire continues throughout the period. Collared Urns and later vessels seem to be spread as diffusely as Food Vessels

The Upper Wolds Valley round barrows were built on the Cretaceous chalk and the burial mounds were primarily earthen in the use of materials. There was a strong presence of composite burial mounds incorporating the local chalk layered on top of

an existing earth mound or vice versa. There were no kerbs, ring-ditches were more common and a number of sites were expanded as shown by internal ditches. The Upper Wolds Valley is the only case-study area that contained a stake-circle beneath an extended mound in the site of Greenwell 47. This round barrow consisted of an inner chalk mound surrounded by a concentric stake-circle alignment dated from c. 2150-1850 BC (Garwood, 2007). This is corroborated by the recovery of a Weak Carinated Beaker (c.2200-1900 BC) from a hearth between the inner stake-circle and the chalk mound (Greenwell, 1877; Kinnes and Longworth, 1985). Beakers had a strong presence in the Upper Wold Valley found associated with burials and within round barrows overall. The presence of additional Neolithic wares indicates activity prior to c. 2500 BC at some of these sites. The presence of Beakers from the early Long-Necked, Short-Necked and Weak Carinated styles indicate the Early Bronze Age activity in the Upper Wolds Valley began c. 2200 BC. Food Vessel Vases and Bowls date the apex of activity to c. 2200-1700 BC. This is confirmed by the presence of flat-riveted daggers associated with burials dating from c. 2300 BC onwards. The knife-dagger in Greenwell 57 supports the c. 2200-1700 BC apex given their circulation from c. 1900 BC onwards. Only one sherd of Collared Urn was found in Greenwell 63 but related burial practices have not been identified in the Upper Wolds Valley. This is surprising given circulation of Collared Urns from c. 2000-1500 BC and their strong presence in the overall data. The dominance of inhumation burial in the region with more than double the number of round barrows containing inhumation burials than cremations. All of the insertion burials into mounds in this case-study area are inhumations as opposed to the more typical cremations expected at the end of the sequence. Cremation burials in Upper Wolds Valley round barrows are in the ground surface beneath the mound. The dearth of cremation burial is supplemented by a handful of sites that demonstrate burning during their sequence and the overwhelming presence of graves in the archaeological record.

The Ure-Swale interfluve contrasts with the round barrow activity in the Upper Wolds Valley. The majority of the excavated sites are on the lower-lying areas near the confluence of the Rivers Ure and Swale. This was formed by superficial glacial tills, sand, and a significant gravel terrace. The burial mounds in this data are evenly divided

between composite and earthen compositions which tallies closely with the overall Yorkshire data. Kerbs and ring-ditches are present in the round barrows. The latter are more common in the Ure-Swale interfluve: three round barrows have kerbs as part of their structure in contrast with their absence from the Upper Wolds Valley. The pottery recovered in the interfluve was predominantly Food Vessel. Finds associated with round barrows in the area were scarce in contrast with the find-spots throughout the interfluve. The majority of these Food Vessels were Vases though a Bowl was located in Quernhow but an S-Profile Beaker was associated with a crouched inhumation in West Tanfield, an Accessory Cup found in a round barrow in Melmerby Common, and a Collared Urn secondary cremation inserted into the mound of Stapley Hill. The later styles are fewer but the Nosterfield ring-ditch continued to be associated with burial beyond the Early Bronze Age and into the Middle Bronze Age. The pottery associated with burial is less diverse in this region but the presence of Food Vessel Vases and other traditions indicates an intense period of round barrow activity c. 2200-1750 BC. The lack of other artefact types associated with burials in the interfluve makes refining this more difficult. It is clear from depositional practices that the Ure-Swale was invested in Early Bronze Age exchange networks even if they did not relate to the mortuary practices associated with round barrows. Cremation burial is the dominant treatment of human remains and there are only three inhumations from the Early Bronze Age period. The Beaker burial at West Tanfield could have been a flat burial and was located away from the rest of the barrows in the lowland interfluve. The other two inhumation burials were associated with Food Vessel Vases at Centre Hill and Stapley Hill. Furthermore the burial in Centre Hill was interred in a timber coffin and was aligned with the Neolithic monuments of the Thornborough complex (Lukis, 1870). Stapley Hill used wood to reinforce an inner mound or to form a shelter over the remains which were laid on the ground surface and covered with turf (McCall, 1904). These two sites are anomalies as cremated remains were more common than inhumation. Evidence for burning is as scarce, there are only four sites have indications of extreme heat in their sequence.

The Howardian Hills contrast with the other case studies. The area is not at as elevated as the Upper Wold Valley but is higher than the Ure-Swale interfluve. The Hills are a

combination of limestone and sandstone surrounded by glacial till to the west and clay beds to the east. Regarding the burial mounds, there is an even divide between earthen and composite constructions similar to the Ure-Swale interfluve which is equally diverse geologically. The majority of the excavated round barrows had mounds primarily constructed of sand occasionally intermixed with clay soils. Examining the stratigraphy, these mounds were constructed in a single-phase. Other architectural features such as ring-ditches and kerbs were present with more ring-ditches than kerbs. There was evidence of expansion of some burial mounds with internal ring-ditches and kerbs located in the Howardian Hills. These were located close to lower-lying areas and the internal ring-ditches towards the older barrows in the Wolds. Collared Urns were the most common find followed by Accessory Cups. Food Vessels were significant in some round barrows but there were no Beaker vessels. Examining the relationship between pottery and burials in excavated sites, Accessory Cups (6) were as common as Collared Urns (6), there were three examples of Food Vessel Vases associated with human remains. There were few artefacts of other materials associated with round barrows and their burials in the Howardian Hills. There were bone and jet objects but metalwork was found Greenwell 2. This barrow contained three bronze awls associated with a female inhumation (Kinnes and Longworth, 1985). These are examples of metalworking from the end of the Early Bronze Age corroborated by Collared Urns and Accessory Cups (c. 2000-1500 BC). Human remains on the Howardian Hills are dominated by cremation burials with only two barrows containing inhumations: Greenwell 2 and Greenwell 135. The latter contained degraded remains within a stone-lined cist with no associated artefacts. The round barrows in the Howardian Hills are mainly associated with cremation practices but evidence of burning is concentrated on a particular cluster near the centre of the Hills. Table 8.1 summarises the findings from the previous chapters discussed in detail above.

Factors	Yorkshire	Upper Wold Valley	Ure-Swale Interfluve	Howardian Hills
Earth mounds	766	22	13	32
Cairn mounds	162	1	1	0
Composite mounds	647	14	11	31
External ring-ditches	842	34	41	61
Internal ring-ditches	38	7	0	7
External kerbs	133	0	2	3
Internal kerbs	40	0	1	1
Stake circles	13	1	0	0
Beakers	91	50	1	0
Beaker burials	47	14	1	0
Food Vessels	207	20	14	3
Food Vessel burials	166	14	12	2
Collared Urns	175	1	2	17
Accessory Cups	73	3	1	6
Inhumations	329	144	12	4
Inhumations beneath mounds	-	89	3	4
Inhumations in mounds	-	55	0	0
Cremations	397	16	88	27
Cremations beneath mounds	-	15	14	15
Cremations in mounds	-	1	8	12
Peak period of activity	c. 2200-1500 BC	c. 2300-1750 BC	c. 2100-1600 BC	c.2000-1500 BC

Table 8.1: Trends across Yorkshire and the case-study areas

8.2. Development of Yorkshire round barrows between c. 2500 and 1500 BC

The overall sequence of development in Yorkshire round barrows and the case studies is complicated by the diversity across the county. Though they never assumed the popularity of Food Vessel burials, Beaker burials have a solid presence in the Wolds and the North Yorkshire Moors as observed in Figure 4.16, Figure 4.17, and Figure 4.18. There is a strong relationship between Beaker burials and existing Neolithic monuments. This is the case in Yorkshire especially in the Upper Wolds Valley where established sites form the basis of later round barrow cemeteries. The role of Beakers in mortuary contexts and elsewhere has been compared with the use of existing indigenous pottery traditions elsewhere (Bradley 2007).

In the Upper Wold Valley there was an existing round mound tradition with Duggleby Howe, Wold Newton, and Willy Howe. These barrows were incorporated into later Early Bronze Age practices. The Rudston Long Barrow contained two early Beaker burials (Greenwell, 1877) and radiocarbon dating of Burial M in Duggleby Howe indicated that the interment took place c. 2290-2030 BC (Gibson and Bayliss, 2010). Undiscovered examples could remain in the Upper Wold Valley. Both Mortimer (1905), and, Gibson and Bayliss (2010) noted that Greenwell did not detect the presence of chalk mounds beneath earth. Greenwell 60, which contained a Low-Bellied S-Profile Beaker burial in the mound, could have been a Neolithic cairn mound that had been expanded with a subsequent Beaker burial. South Side Mount Barrow contained two Carinated Beaker burials in the burial mound (a Weak-Carinated vessel and a Tall Mid-Carinated vessel). The first phase of Garwood's (2007) model for southern British round barrows dated to before the initial mound when older sites were covered between c. 2500-2150 BC.

Mortuary practice in the Yorkshire round barrows indicates a closer connection with earlier Neolithic monuments in early Beaker burials. In the Ure-Swale interfluve, round barrows relate closely to the henges at Thornborough, Cana Barn and Hutton. They have a much tighter chronology c. 2100-1800 BC when the Food Vessel tradition was the most prominent. There was a sole later Beaker burial and round barrows were

incorporated into existing complexes such as Centre Hill's at Thornborough. The existing Neolithic round barrow had no evidence of any burials or insertions from c. 2500-1500 BC. The sequences for some burial mounds in the Ure-Swale interfluve are less prolonged than the Upper Wolds Valley but there is variation. Both Stapley Hill and Quernhow have much longer sequences than the barrows around Malmesbury Common. Those sites near to the henges at Nunwick and Cana Barn had much simpler stratigraphies with sandy soil used to build the mound. This was the case at Centre Hill and one of the Three Hills where clay was used to assemble the burial mound. These five sites were in close proximity to existing Neolithic sites were assembled in a shorter timespan than other nearby round barrows. Evidence of intermittent use and expansion was recovered at two of the Three Hills sites where interspersed layers of clay and burnt charcoal comprised the burial mound's' stratigraphy. Some sites were left for an extended period such as Quernhow where erosion of one of the layers in the burial mound was well-documented by Waterman (1951). Recent chronologies support the interpretation that the site was returned to repeatedly over time with the Food Vessel Bowls appearing early in the site sequence and Food Vessel Vases used throughout the rest of the mound. These barrows were *broadly* contemporary to one another. Waterman hypothesised a period of abandonment during Quernhow's sequence that could be when other round barrows were used and developed. The initial burial at Stapley Hill was accompanied by a Food Vessel and covered by a wood-reinforced mound. Later the mound was expanded and a cremation in a Collared Urn added to the mound. This point could be when the shorter sequence barrows are constructed or it could represent a time when other landscapes were more significant for mortuary sites.

There are a number of mounds with simple stratigraphies in the Howardian Hills. These sites were raised soon after the burials were placed. As in Table 8.1, these were predominantly cremations accompanied by Collared Urns indicating the majority of barrows in the Howardian Hills post-date c. 2000 BC. There is some inhumation burial and there are two Food Vessel burials but the vast majority of these sites contain Accessory Cups or Collared Urns in association with cremated burials. Gibson (2004b) proposed that Accessory Cups were fired in the cremation pyre. In light of this their

presence in the Howardian Hills is intriguing. The distance of the barrows in the Howardian Hills away from the older landscapes is significant. The majority of sites are situated away from the Wolds and the North Yorkshire Moors. There is little evidence of Neolithic monuments like those in the Upper Wold Valley or the Ure-Swale interfluve.

In the Howardian Hills mounds were constructed for Collared Urn cremations in Yorkshire. These were much faster paced building. Collared Urns were non-existent along the Upper Wold Valley but spread across Yorkshire. Food Vessels were strongly associated with the Wolds and barely found in the Moors. The same is true of Beaker vessels in round barrows. There are fewer examples outside of the Yorkshire Wolds but this might be a result of the focus that this area has had in terms of research and excavation.

8.3. The relationship between the living and the dead

Sites with just inhumation burial concentrated on the Wolds with outliers while cremation was more diffuse across Yorkshire. The round barrows in the Howardian Hills contained either inhumations or cremations but not both. This was not the case in the Ure-Swale where barrows with inhumations often contained a cremation burial added later (apart from the West Tanfield Beaker burial but evidence suggests this could have been a flat-grave). The Upper Wolds Valley contained virtually all inhumations but one barrow only contained a cremation (Mortimer 7), and only three only contained sole inhumation burials (Dog Hill, Greenwell 39 and 42). Round barrows that contained only inhumations were much more common in the Upper Wolds Valley. Across the various case-study areas there are very different practices being carried out for the treatment of the dead. The differences are spatial *and* temporal. The activity in the Upper Wolds Valley is broadly contemporary with the Ure-Swale interfluve. The different use of inhumation and cremation is as much about space and place as changing social practices over time. From the Upper Wolds Valley to the Ure-Swale interfluve to the Howardian Hills, there is a transition from inhumation to cremation as the dominant mortuary practice. There remains an element of diversity where choice between inhumation and cremation continues throughout the Early Bronze Age.

There is little association with Collared Urns in the Upper Wold Valley and the majority of the burials are inhumations. This is different to patterns elsewhere in Yorkshire where Collared Urns are prevalent and there is an even split between inhumation and cremation burials in round barrows. There are only two barrows on the Howardian Hills which contain inhumations: Greenwell 2 and Greenwell 135. Greenwell 2 is anomalous: the mound covers three inhumations laid out over a paved platform area. The most interesting feature is the association of a Collared Urn with the crouched burial of an adult female, another female burial associated with bronze awls and fragments of a jet bead, and a male inhumation with a flint spall. These burials are eccentric considering the associated artefact assemblage and the use of a Collared Urn similar to a Food Vessel or Beaker. Greenwell 2's mound was made of earth and stone, and there was evidence of burning throughout. Greenwell 135 contained the degraded remains of an inhumation under a cist capped over with sand typical of the majority of barrows in the north-east of Yorkshire. These sites are the exception in the Howardian Hills with the majority of round barrows containing cremation burials. There is no crossover between inhumation and cremation practice in the Howardian Hills. Both the Upper Wold Valley and the Ure-Swale interfluve contained *some* barrows with both inhumation and cremation burials.

Another issue relates to burning. In the Ure-Swale interfluve and the Upper Wolds Valley burning is situated diffusely across the landscape. In the Howardians Hills evidence for burning in round barrows centres on one lower-lying part of the Hills. This could be the result of a specific practice for a barrow cemetery. Though the topography is lower-lying in the Hills themselves, the smoke would have been visible to others in the surrounding area. A proscribed area where these rites took place has been explored before but the surrounding area would simultaneously offer cover from the immediate area while enabling the evidence of cremation to be seen from a long distance via the smoke.

8.4. Prehistoric engagement with the physical world

The close statistical relationship between cairn and composite round barrows and the high probability they share architectural features would appear to be the result of the

high concentration of these sites in the North Yorkshire Moors. This signifies that the choice of using a ring-ditch or a kerb went beyond the engineering concerns highlighted by Grinsell (1936), or Ashbee (1960). In cases where round cairns are surrounded by external ring-ditches, there is a sense of propriety or aesthetics in addition to structural integrity. Another possibility is that these features were present before the mound was constructed and an open-arena monument was adapted into a round cairn. Frequently the ring-ditch was the final stage in construction but sequence is poorly understood in these sites. The ring-ditch does not have to by a quarry ditch for the final layer of the mound though this might frequently be the case.

This highlights the issues with Yorkshire round barrows and similar sites elsewhere. There is a long timescale for monument construction and architectural features might not have one single function. The ring-ditch might be a quarry ditch for an earthen or composite burial mound and act as a 'technology of remembrance' for depositional practices (Nowakowski, 2007). These identities are not mutually exclusive and not fixed throughout the Early Bronze Age. The use of a Collared Urn in the inhumation at Greenwell 2 where a later vessel was incorporated into an earlier crouched inhumation. Certain objects might have assigned roles within the assemblage for burials but they were not strictly applied. Here a Collared Urn was substituted for a more commonly used Food Vessel.

The relationship with existing Neolithic monuments in the Upper Wolds Valley continues through to c. 2200 BC. Later round barrow burials are located within close proximity to the Rudston monument complex and the Great Barrows: Wold Newton, Willy Howe, and Duggleby Howe. The differences between the round barrows of the Upper Wold Valley and the Ure-Swale interfluve can be traced to the landscape histories of the two regions. The Neolithic monuments in the respective case-study areas are from different points in time. The cursus monuments at Rudston date to c. 3400-3300 BC while the henges in the Ure-Swale interfluve date to c. 2700-2500 BC. If round barrows follow older monuments then the later barrow tradition logically follows a later monument tradition. There is not as much interest in the Early Neolithic round barrow, likely the founding monument of the Thornborough complex, and the

later Early Bronze Age burial mounds engaged more closely with the Late Neolithic henges and the double-pit alignment.

The round barrows around the Thornborough complex are much more closely embedded in the alignments of monuments than their equivalents in the Upper Wold Valley. Another point of comparison for the Ure-Swale interfluve landscape is Quernhow that Waterman (1951) directly compared to the other barrows of the North Yorkshire Moors. Stapley Hill contained wood reinforcement of the initial mound covering a Food Vessel inhumation reminiscent of practices that occur on the Wolds (Petersen, 1970). These indicate relationships outside of the interfluve and evidence of finds deposited throughout the region in contrast to the artefacts associated with burials in round barrows indicates the significance of the landscape itself. The terrace between the Ure and Swale was used throughout the later Neolithic as a waypoint or possibly a spiritually significant landscape.

8.5. Conclusion

The development of Yorkshire round barrows focused initially on one or two areas with existing monuments from the Neolithic such as the cursus complex at Rudston or the henges in the Ure-Swale lowlands. Overall there was a shift away from those areas over the course of the Early Bronze Age. This was a gradual process and was not uniformly paced. After c. 2000 BC, there was more interest in moving away from these existing complexes and the development of new round barrow landscapes began. The round barrows in the Howardian Hills are an example of this phenomena. Areas such as the Ure-Swale interfluve remained in sporadic use throughout the period: c. 1900-1500 BC, with the burials of cremations associated with Collared Urns at Stapley Hill and the Nosterfield ring-ditch.

Neolithic round barrows are sited mainly in the Wolds but are found on the North Yorkshire Moors, the Pennines and western uplands. This contrasts with the third-quarter of the third millennium BC where the earliest sites are exclusively in the Yorkshire Wolds especially to the south-east. By 2250 BC, barrow construction expands to the Pennine Hills and the North Yorkshire Moors. The Wolds remain consistently popular but new sites move away from the south-east edge and populate more widely

along the north-western escarpment adjoining earlier Neolithic sites. Round barrows from c. 2000 BC onwards penetrate deeper into the Pennine Hills and uplands. Though construction remains in the North Yorkshire Moors and the Wolds. By this point, the Wolds are declining as a round barrow landscape in favour of the North Yorkshire Moors.

There is a longstanding tradition of long barrows and round barrows dating to the Neolithic in Yorkshire. It is interesting that this practice declined between c. 2500 and 2200 BC. Evidence from the few sites with radiocarbon dates supports this lull with only a few certain dates from this period from Yorkshire round barrows (see Appendix 5). This is reminiscent of Garwood's theories regarding early Beaker practice in southern Britain (2012). There are no examples of Weak Carinated vessels in the Yorkshire material to relatively date. The additional burials in Neolithic round barrows are predominantly mid-Beaker vessels. Burials in Neolithic associated mounds are more exclusive. After 2250 BC, round barrows become more common. There is a much wider distribution for these monuments but many new barrows are in close proximity to the Neolithic ones. This contrasts with the scarcity between c. 2500 and 2250 BC. By the turn of the second millennium BC, focus shifted with the majority of new sites being situated in the North Yorkshire Moors and sites built around the Wolds.

Relationships with the dead in various landscapes followed the same pattern. The even spread between inhumation and cremation across Yorkshire corroborates the findings from the Upper Wold Valley and the Ure-Swale interfluve. These two contemporary landscapes have different practices relating to round barrows. The Upper Wold Valley continued with inhumation practices throughout c. 2500-1750 BC, while the Ure-Swale interfluve round barrows in the majority practiced cremation between c. 2100-1500 BC. There are exceptions with Centre Hill and Stapley Hill where Food Vessel inhumations were interred at the Ure-Swale interfluve and the cremations in ten round barrows from the Upper Wold Valley (see Table 5.5). The consistent use of the lower-lying landscapes for the cremation in both the Ure-Swale interfluve and the Howardian Hills is intriguing use of spectacle. These trends are summarised in Table 8.2 below.

Date range	Yorkshire overall	The Upper Wolds valley	The Ure-Swale interfluve	Howardian Hills
c. 2500-2150 BC	Use of Neolithic round barrows focused on the Wolds and the North Yorkshire Moors	Minimal use of existing Neolithic round barrows	No use of existing Neolithic mounds	No existing Neolithic mounds
c. 2150-1700 BC	Peak of round barrow activity in the Yorkshire Wolds and the North Yorkshire Moors. Expansion into western Yorkshire c.2100 BC onward. Late Beaker burials in eastern Yorkshire, with Food Vessel burials across Yorkshire but overall few grave goods	Peak of inhumation and construction activity Mid Beaker and Food Vessel burials Rich grave goods Some connection to Neolithic monuments	Peak of burial activity, mostly cremations Construction of burial mounds toward the end of this period Food Vessel burials Scant additional grave goods Close connection to Neolithic monuments	Minimal burial until c. 2000 BC. (see below)
c. 1700-1500 BC	Round barrow activity in western and northern Yorkshire Collared Urn cremations Minimal grave goods	Minimal round barrow activity.	Expansion of Stapley Hill mound with Collared Urn burial Burial at Nosterfield ring-ditch Distant from Neolithic monuments	Peak of cremation activity Collared Urn burials. Possible reworking of older burials.

Table 8.2: Chronological trends in Yorkshire round barrows

Chapter 9. Conclusion

None of the data examined by this research was new. It was available from publically accessible resources and published accounts. It has not been collected and collated in this manner before. Yorkshire has a vast reserve of material obtained from excavation and survey of its round barrows. This thesis has broken new ground in cataloguing, collating, and geographically referencing this data in a way that will have a lasting impact for studies of the monumental architecture in Early Bronze Age Britain. After crafting a method of collection and examining the data, it is clear that more research is needed. Concluding this thesis, there are a number of issues and recommendations that could be made in the light of this work. There are a number of findings –the elaboration of poorly understood sequences in the Ure-Swale interfluve or the Upper Wold Valley.

Yorkshire is a large area with a vast number of sites and it is difficult to draw definite conclusions from the collected material. There is a definite sequence of mortuary practice in relation to round barrows in during the period c.2500-1500 BC. They focus initially in the east particularly the Wolds and the North Yorkshire Moors. These landscapes have many of the earliest Beaker burials in the region and retain thriving round barrow landscapes to the Middle Bronze Age. Then round barrows monuments become less significant to mortuary practice. Throughout Yorkshire, practices such as Food Vessel burial, Collared Urn and Accessory Cup cremations become increasingly significant from c. 2100 BC. Regarding the treatment of the dead, cremation is pre-dominant in Yorkshire round barrows overall particularly outside of the Wolds and the southern uplands of the North Yorkshire Moors. There is a strong link between cremation and lowland areas in Yorkshire as shown by its dominance in two out of three case study areas. This narrative is supported by evidence from the more detailed analyses in the Upper Wold Valley, the Ure-Swale interfluve, and the Howardian Hills. The round barrows in Upper Wold Valley and the Ure-Swale interfluve retain a strong relationship with the earlier Neolithic monuments. The Howardian Hills are a later landscape with different practices and no discernable connection to previous monuments in the area.

It is difficult to discern the relationship between the living and the dead in Yorkshire but the tendency toward cremation raises questions regarding the nature of corporeality, personhood, and identity. The evidence of this practice in the Ure-Swale indicates the significance of cremation as a transformative practice. The contrast with those mortuary practices in the contemporary Upper Wolds Valley demonstrate a different relationship between the living, the dead, and the world they inhabited. The element of time in mortuary practice is a factor. The burials in the Upper Wolds Valley indicate a much closer relationship with the deceased. Favouring inhumation as a continuing practice because the barrows were focal points for ritual and ancestral communion in contrast with the unknowable cursus monuments along the Gypsey Race. The Ure-Swale interfluve was populated by monumental tradition from the more recent past: the henges. These represented a more immediate relationship and the burials were an accessory to existing practices of pilgrimage continuing from the Neolithic. The Howardian Hills are more difficult to understand in terms of relating the living and the dead. These monuments are more transient commemorating cremation that focuses on two areas. There is no recent excavation work from the area which complicates interpretation. The round barrow practices in Howardian Hills are much later but there is an element of ritual nostalgia where Collared Urns fulfil the role of other vessels in inhumation burials. The landscape is overshadowed by the active north-western escarpment of the Wolds. The spectacle of cremation is the key: those sites with burning and transformative properties are in the lower-lying areas of the Hills enabling the smoke and fire of a pyre to be visible from a distance but the enclosing ritual and its immediate observers within a smaller space. These burials were only intended for a few because these dead were significant.

The difference between Yorkshire as a whole and the individual case-study regions is distinct. The approaches on the smaller scale have been much more forthcoming than the output from the wider scale collection. The information overload and the weighting of data towards the Wolds and the North Yorkshire Moors overshadows other round barrow landscapes. The Pennines are a under examined and under-surveyed region. It would be beneficial to break down modern landscapes such as the North Yorkshire Moors or the Yorkshire Wolds and study the individual components

further. Though it has been argued that these landscapes are over-examined, the small-scale approach for this thesis would improve the overall understanding of round barrows in the North Yorkshire Moors and the Yorkshire Wolds. This could be done by approaching them as macro scale environments like Yorkshire was examined in Chapter 4 of this thesis then applying the smaller scale approach to individual portions such as Chapters 5 to 7. Examining the Yorkshire Wolds and the North Yorkshire Moors to this degree would be the focus for two additional research projects respectively.

Raw data remains an issue. The Upper Wold Valley case study had twenty-seven sites with associated excavation records and these were produced in the 19th and 20th Century. In two cases, individual round barrows were examined twice by subsequent generations of archaeologists. The Ure-Swale interfluve had twelve sites with associated excavation records within close proximity of one another. This produced a much tighter geographical focus than the Upper Wolds Valley or the Howardian Hills. These sites did not have much previous research in relation to each other or other monuments in the landscape aside from limited coverage in Bridgland *et al* (2011). The round barrows excavated in the Howardian Hills were insignificant in comparison to those discovered during the 1995 survey barely comprising a sixth of the total identified sites. This could be alleviated by publishing those sites without available excavation reports. Yorkshire has an array of archaeology from the Early Bronze Age but much of it remains hidden by the lack of publication.

There is much to be done to understand the round barrows of Yorkshire. The framework and method established for this research could be applied to other regions of Britain to investigate the development of monumental landscapes. The increased definition of recent chronologies and the application of radiocarbon data are a benefit for researching the monument sequences of the past as they inform present understandings of past relationships between the dead and the living, and prehistoric understandings of the past. There is more to be done and the hope is that this research has opened up the possibility further.

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